DOCUMENT RESUME

ED 070 854 VT 018 253

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TITLE	Selected Functional Components of a Vocational Education Counseling System for Urban Youth.
INSTITUTION	American Institutes for Research in the Behavioral Sciences, Pittsburgh, Pa.
SPONS AGENCY	Pittsburgh School District, Pa.
REPORT NO	AIR-32400-9/72-FR
PUB DATE	Sep 72
NOTE	127p.
EDRS PRICE	MF-$0.65 HC-$6.58
DESCRIPTORS	City Wide Programs; *Demonstration Projects; *Job Placement; Job Training; Occupational Guidance; *Program Evaluation; Resource Materials; Secondary Grades; Systems Approach; Tables (Data); *Urban Youth; *Vocational Counseling; Vocational Education

ABSTRACT

The purpose of this annual report is to evaluate a demonstration project in vocational counseling for urban youth which is composed of four major elements: (1) a career orientation program for preadolescents, (2) a cooperative work experience program for students enrolled in vocational skill development at the secondary level, (3) a job placement program for high school graduates, and (4) a counseling and training program to serve high school students who are not enrolled in vocational programs. Encompassing activities under the Occupational Vocational and Technical Education Training Division of the Pittsburgh Public Schools, these four functional components were selected from a comprehensive occupational guidance program for the elementary and secondary grades. This program review presents a project summary with recommendations, together with detailed descriptions of the three phases of the career orientation programs and the other program components. Although the programs function efficiently, the reasons why 5.2 percent of the 1971 graduates were not placed should be studied in order to remedy the situation. Various tables present the data, and extensive resource materials are appended. (AG)

AIR-32400-9/72-FR

ED 070954

SELECTED FUNCTIONAL COMPONENTS OF A VOCATIONAL EDUCATION COUNSELING SYSTEM FOR URBAN YOUTH

Submitted to:

Pittsburgh School District
341 S. Bellefield Avenue
Pittsburgh, Pennsylvania 15213

Submitted by:

American Institutes for Research
710 Chatham Center Office Building
Pittsburgh, Pennsylvania 15219

Jane G. Schubert
Michael Rosenfeld

September 1972

VT018253

ED 070854

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ACKNOWLEDGMENTS

In order to successfully conduct this evaluation project, it was necessary to coordinate many activities between representatives of the Pittsburgh Public Schools and the American Institutes for Research (AIR). The authors would like to express their appreciation to Mr. John Pardini, Dr. Alma Evans, Mr. Al Markowski, and Mr. Fred Monaco for their cooperation and assistance in supplying the valuable information about program operations required to complete this study. In addition, the authors would like to thank the school administrators, teachers and students who participated in this project.

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INTRODUCTION

The purpose of this report is to evaluate the demonstration project, Selected Functional Components of a Vocational Education Counseling System for Urban Youth. The project encompasses activities under the Occupational Vocational and Technical Education Training Division (OVT) of the Pittsburgh Public Schools. This project is composed of four major elements: (1) a Career Orientation program for preadolescents, (2) a cooperative work experience program (COOP) for secondary students enrolled in marketable skill-centered programs, (3) a placement program for high school graduates, and (4) a counseling/training program to serve high school students who are not enrolled in vocational programs (Project SET). These components were selected from a comprehensive program oriented toward a continuum of counseling/guidance functions starting with exploratory experiences in the elementary grades and culminating in job placement or advancement to postgraduate training and education.

Since the level of funding for the evaluation effort precluded an in-depth evaluation of all program elements by the American Institutes for Research (AIR), the AIR evaluation team and members of the Pittsburgh Public Schools project staff agreed upon the project components to receive maximum coverage during this year's evaluation.

Major emphasis was placed on the evaluation of Phase I and Phase II of the Career Orientation program plus Project SET. Less emphasis was placed on Phase III of the Career Orientation program and the COOP and Graduate Placement programs.

The following report is divided into sections covering Phase I, Phase II and III, Project SET and the COOP and Graduate Placement programs.

SUMMARY AND RECOMMENDATIONS

Phase I

Phase I seems to be functioning well. The itinerant team has increased from three to six members, enabling more schools to be included in the exploratory program. Student attitude and achievement scores indicate that students like the program and that they are learning the desired material. The average student correctly answered 77% of the items. However, there were significant differences in the test performance among the schools participating in Phase I.

One of the major objectives of Phase I is to coordinate career exploration and classroom activities. Yet the majority of classroom teachers stated that no formal method of communication existed; in some cases the teachers were unaware of one another's schedules or planned activities. Teachers' comments also suggested they need more training or orientation in order to familiarize them with the objectives of the program. Some of the teacher-recommended changes were contrary to the program objectives.

AIR recommends that:

1. Project management initiate procedures for improving the communication network between the regular classroom and the itinerant team teachers.
2. Project management investigate the differences among the high and low achieving schools. This information can then be used for program modification.
3. Project management consider modifying the current training program to insure that all teachers understand the objectives of Phase I career exploration.

Phase II

Both student and teacher interest in Phase II seems to be high. Student attitude scores indicate students like the program; however, their average achievement test score was equivalent to only 61% of the items answered correctly. This suggests that the curricular objectives of Phase II were not met as successfully as in Phase I. In addition, there were significant differences between the high and low performance scores among the OVT exploratory centers.

The teachers indicate interest in the program and a willingness to invest time and resources in preparing themselves to teach Career Orientation. However, they do not feel that their training is appropriate to meet the practical requirements of the Phase II classroom. They felt that it was more theoretical than pragmatic and consequently, not as useful as it could have been. In addition, teachers indicated that the counseling expected of them at the conclusion of the year was a task which they felt unqualified to perform. A student's choice for in-depth exploration is based primarily on the Phase II experience; only one class session at the close of the year is set aside for students to discuss the Phase II experience with a teacher and then choose four subjects for the Phase III study. The teachers expressed interest in wanting to provide student assistance. They were not only unprepared to do so, but the limited time restriction did not help the student choose next year's curriculum.

AIR recommends that:

1. Project management identify the specific content necessary in order to make teacher training more relevant to the needs of the classroom.
2. Project management look into the counseling task assigned to the teacher, provide training in the conduct of these sessions, and attempt to arrange adequate time to fulfill the goals of this assignment.
3. Project management investigate the reasons for significant differences in student achievement among the OVT centers and the reasons why average achievement level is only 61%.

Phase III

As with Phase II, the teachers appear to be very interested and challenged by the Career Orientation program. They are willing to invest time and talent to achieve the program objectives, but they are not always clear about what those objectives really are. Project management should reexamine these objectives and design the training which will adequately prepare teachers to achieve them. In addition, the course syllabus should be reviewed and, if necessary, modified to enable teachers to use it as a guide in the classroom.

Project SET

All program participants seem to feel very positively toward Project SET. The majority of employers, staff members, parents and students expressed enthusiasm about the concepts of the project and the practical results of having students gain work experience as they complete their formal education. The results suggest that the Project SET staff is performing a commendable job in placing alienated students in employment situations.

AIR recommends that:

1. Project management investigate the possibility of improving the orientation program which all students receive prior to job interviews and placement. This program should emphasize such items as what to discuss on an interview, what kinds of questions employers might ask, and job courtesies such as tardiness, absenteeism, etc.

2. Project management consider the need for an increased economic incentive for the employers. Although many of them participate because of a social commitment, more employers would participate if a percentage of the students' salary was subsidized by other sources.

3. Project management consider the manner in which students are described to prospective employers. Although school representatives do not want to misrepresent the background and educational experience of the students, some employers felt that students had been presented a bit too negatively.

4. Project management should explore the possibility of utilizing additional resources within the school system to aid in contacting and placing students.

5. Project management should investigate the feasibility of rearranging teachers' schedules to allow more flexibility in order to provide classroom time for the remediation of working students.

Graduate Placement and COOP Programs

This year's review of the Graduate Placement and COOP programs indicate that they continue to function effectively and efficiently while adding some program changes which aid in placing more students. In order to continue to increase the efficiency of the Graduate Placement program, project management should investigate the reasons why 5.2% of the 1971 students were not placed. Attempts should be made to make the necessary program changes for increasing the number of these students placed.

CAREER ORIENTATION PROGRAM

The Career Orientation program has been developed in three phases. Phase I (6th grade) is an introductory exploratory experience in which students are exposed to a variety of manual arts while simultaneously being exposed to elements of the broad concepts relating to the "world of work": human relationships (personal development), production, communications, and economics (consumership).

In Phase II (7th grade) the students are to gain actual experience in ten vocational content areas by participating in a simulated world of work activity and learning about occupational opportunities within these vocational areas. In addition, the broad concepts identified above are more thoroughly reinforced in this phase.

Phase III (8th grade) constitutes an opportunity for students to focus vocational exploration on four subject areas which the student has selected for in-depth exploration. The selection is based upon the student's experience in the Phase II program and the use of a teacher-student contract.

Phase I

Phase I -- 6th Grade

The purpose of the Phase I Career Orientation program is to introduce the exploratory experience of occupational education to students in the 6th grade. "Hands-on" activities within the fields of Human Relations, Production, Communication and Consumership provide the basis for curriculum development and selection.

Actual program implementation began in March 1971. At that time, three itinerant teachers were assigned to coordinate activities in Business, Home Economics and Industrial Arts which were used as the vehicles for introducing the previously identified concepts to 6th graders in selected city schools. During the 1971-72 school year the number of itinerant teachers was expanded in order to staff two teams, each comprised of three teachers. These two teams serviced 15 city schools.

One of the primary goals of the Phase I program is to coordinate the Career Orientation activities with the regular classroom activities. Both Career Orientation teachers and classroom teachers were to meet regularly to exchange information regarding curriculum plans. The Phase I activities were to include the content of these plans when possible; for example, if students were learning how to use a typewriter, they might practice typing some of their spelling words.

Each team of itinerant teachers visited two or more schools per day where they conducted an 80-minute class session. During this time, the teachers supervised hands-on activities by students; in the early implementation stages of the program, these production activities extended over a period of weeks. As a result of last year's evaluative inputs from teachers and students, the program has been modified to limit the production of an item to no more than two class sessions. Each school was visited by one itinerant team once a week. When the products were completed, students were permitted to keep the items they had made.

Class sessions were conducted in a room especially set aside for use by the itinerant team. Class sizes ranged from 20 to 60 students. In some cases, the classroom teachers stayed with the class during the 80-minute session. Initially, a working model of the Phase I curriculum, implemented in the Chatham School in 1968, provided a basis for the activities planned by the itinerant teams. Following the first full year of implementation (1970-71), teachers revised the curriculum based on their classroom experiences.

Evaluation Method

The Interactive Process of Evaluation

In evaluating programs, the role of the evaluator has often been perceived in negative ways. Those most closely associated with the program, namely the teachers, frequently assume that an evaluation is to be conducted for the purpose of evaluating the teachers rather than the program itself. The existence of this attitude frequently makes it quite difficult to gather useful data on which to base recommendations for program change.

AIR supports the notion that the role played by the evaluator and the perception of this role by the project staff can be a critical factor in determining the success or failure of an experimental program. The efficiency and usefulness of the evaluator are maximized when functioning as a colleague anxious to help the program succeed rather than merely identifying and amplifying weaknesses which document failure. In order to help a program succeed, an evaluator can: (1) develop procedures for objectively determining the degree to which stated objectives are achieved and (2) provide recommendations for improving project performance during the continuation of the project. The technique employed to achieve the objectives of this evaluation is the interactive process of evaluation. In this process, project management and classroom teachers work together with the evaluation team to define behavioral objectives of the program and develop the instruments which measure student achievement of those objectives.

Development of the Instrumentation

Project staff members and the evaluation team worked together to develop instruments specifically designed to measure selected project objectives. Items for the achievement test were submitted by the teachers to the evaluation team. The evaluation team edited the items and produced the final student performance instrument plus teachers' questionnaires. The following instruments were used in the evaluation of the Phase I program.

1. A criterion reference test consisting of 26 items designed to assess student achievement of selected Phase I curricular objectives (see Appendix A).

2. A student questionnaire consisting of eight scaled items and two open-ended items (see Appendix B). This instrument was designed to assess student attitude toward Phase I and on the basis of student responses, identify problem areas.

3. A classroom teacher questionnaire consisting of five open-ended items. This instrument was designed to obtain feedback from the classroom teachers about the extent to which program activities were coordinated between classroom teachers and itinerant team teachers; their opinion about the practical functioning of the program; and their suggestions for program improvements (see Appendix C).

4. An itinerant team questionnaire consisting of eleven items (both scaled and open-ended). This instrument was designed to provide data about the operation of the program and to receive teacher inputs regarding training and program effectiveness (see Appendix D).

Administration of the Instruments

The Phase I instruments were administered by members of the itinerant teams. The team members followed their normal schedule and set aside time during their regular school visits to administer the test. The team members were requested to read the questions aloud in order that no student be hindered by a low reading level. They also checked the instruments to make certain that the appropriate information had been completed by the students so tests could be coded and scored by the data processor.

Results and Discussion

The project monitor selected the following eight out of 15 participating schools. These schools used in the sample represent a cross section of socio-economic background of Phase I schools. The 299 out of 1320 pupils represent 22% of the total enrollment.

The following eight schools and the number of students sampled in each were selected to conduct the Phase I evaluation effort:

Mt. Oliver	27
Beechwood	82
Letsche	14
Madison	48
Vann	39
Holmes	28
West Liberty	43
Forbes	18
Total	299

The data collected from these schools will be presented and discussed in the following order:

1. Student performance data based on an achievement test prepared in cooperation with members of the Phase I itinerant team.
2. Student attitude data based on a questionnaire consisting of responses from eight scaled items plus two open-ended items.
3. Teacher attitude data based on a questionnaire submitted to all participating itinerant and regular classroom teachers in Phase I. This questionnaire was to be completed by the teachers and returned directly to the American Institutes for Research.

Each of these categories will be discussed separately.

Student Performance

Table I presents mean total achievement test score by school. The overall mean score was 19.97 of a possible 26. Mean student performance represented a score equivalent to 77% of the items correct.

TABLE I
Phase I
Achievement Test
Mean Total Score by School

School	Mean	Standard Deviation	Number
Mt. Oliver	20.04	2.88	27
Beechwood	22.20	2.69	82
Letsche	17.86	3.68	14
Madison	18.96	3.29	48
Vann	19.46	3.39	39
Holmes	15.68	7.87	28
West Liberty	22.30	3.77	43
Forbes	16.22	3.77	18
Total	19.97	4.47	299

Table II on the following page indicates that there were significant differences in the test performance of schools. West Liberty and Beechwood received the highest scores (22.30 and 22.20 respectively) and Holmes and Forbes received the lowest scores (15.68 and 16.22).

Table III indicates that there was no significant difference in the performance of boys and girls on the Phase I achievement test. This suggests that the program appears to be equally effective for boys and girls.

TABLE III
Phase I
Achievement Test
Mean Total Score by Sex

	Mean	Standard Deviation	Number
Male	19.76	3.84	143
Female	20.83	3.42	151

TABLE II

Phase I

Analysis of Variance of Achievement Test Scores by School

Treatment Group	Mt. Oliver	Beechwood	Letsche	Madison	Vann	Holmes	West Liberty	Forbes
Sample Size	27	82	14	48	39	23	43	18
Mean	20.037	22.195	17.857	18.958	19.462	19.087	22.302	16.222
Standard Deviation	2.875	2.687	3.676	3.287	3.394	2.827	3.770	3.766

Analysis of Variance

	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio
Between Groups	999.2777	7	142.7540	13.9098*
Within Groups	2935.1712	286	10.2628	
TOTAL	3934.4490	293		

*Significant .01 level

TABLE IV

Phase I

Item Analysis of Achievement Test
Percentage of Students Selecting the Correct Response

ITEM	Mt. Oliver	Beechwood	Letsche	Madison	Vann	Holmes	West Liberty	Forbes	OVERALL
1	81.5	90.2	78.6	89.6	84.6	91.3	100.0	83.3	89.1
2	100.0	96.3	85.7	81.3	87.2	78.3	93.0	66.7	83.8
3	51.9	69.5	7.1	54.2	35.9	39.1	74.4	27.8	53.7
4	77.8	80.5	78.6	64.6	79.5	95.7	88.4	72.2	79.3
5	48.1	90.2	64.3	35.4	87.2	52.2	67.4	27.8	65.6
6	81.5	97.6	85.7	81.3	76.9	100.0	97.7	83.3	89.5
7	88.9	91.5	78.6	60.4	76.9	69.6	93.0	66.7	80.6
8	92.6	95.1	92.9	91.7	79.5	100.0	97.7	94.4	92.9
9	93.3	100.0	78.6	79.2	84.6	87.0	93.0	55.6	88.4
10	59.3	63.4	28.6	56.3	64.1	52.2	62.8	44.4	58.2
11	85.2	82.9	85.7	75.0	66.7	95.7	93.0	72.2	81.6
12	33.3	56.1	42.9	43.8	43.6	17.4	53.5	33.3	44.9
13	74.1	76.8	50.0	85.4	66.7	43.5	86.0	38.9	71.8
14	85.2	93.9	57.1	87.5	69.2	87.0	88.4	55.6	83.3
15	100.0	100.0	85.7	93.8	97.4	100.0	95.3	94.4	96.9
16	93.6	97.6	92.9	77.1	76.9	82.6	93.0	83.3	88.4
17	81.5	80.5	78.6	79.2	92.	87.0	81.4	77.8	82.3
18	96.3	97.6	100.0	85.4	97.4	95.7	97.7	100.0	95.6
19	77.8	80.5	78.6	64.6	66.7	69.6	76.7	61.1	73.1
20	63.0	63.4	42.9	50.0	69.2	65.2	79.1	38.9	61.9
21	33.3	72.0	42.9	66.7	69.2	34.8	76.7	22.2	60.5
22	66.7	84.1	71.4	66.7	69.2	78.3	83.7	55.6	74.8
23	85.2	95.1	64.3	89.6	87.2	91.3	97.7	61.1	88.8
24	77.8	78.0	78.6	66.7	53.8	47.8	83.7	44.4	69.4
25	85.2	95.1	71.4	91.7	89.7	82.6	95.3	66.7	89.1
26	85.2	91.5	64.3	79.2	74.4	65.2	81.4	94.4	82.0

Table IV (on page 14) indicates the percent of students selecting the correct response for each item by school and overall. The percent of students selecting the correct response (overall) ranged from 44.9 to 96.9. On 11 items between 50% and 80% of the students selected the correct response.

On the remaining 15 items over 80% of the students selected the correct response. Examination of individual school responses indicates wide variation on some items. For example, on item 5 90.2% of the Beechwood students selected the correct response while only 27.8% did so in Forbes. Similarly, on item 12, 56.1% of the Beechwood students responded correctly while only 17.4% did so in Holmes.

Summary of Student Performance

1. The results indicated that students performed well on the Phase I achievement test. The student mean of 19.97 represented a score equivalent to 77% of the items correct. The students evidently learned a large percentage of what the itinerant team intended to teach.

2. The data indicated that there were significant differences in performance of eight schools in Phase I. Students in the two highest scoring schools (West Liberty and Beechwood) averaged 86% and 85% of the test correct while the students in the two lowest scoring schools (Holmes and Forbes) averaged 60% and 62% of the test correct. Project management should investigate these differences in performance and attempt to determine if there are any unique conditions in these schools which might explain this variation in test scores.

3. Item analysis data revealed that there were some items on which there was wide variation across schools in the percent of students selecting the correct response. This indicates that there were items which were more difficult for students in some schools than in others. Since the intent of the Phase I program was to teach the same material in each school, these wide variations on some items should be investigated to determine if the content did differ by school.

4. There were no significant sex differences in performance on the Phase I achievement test. The program appears to be equally effective for both boys and girls.

TABLE V

Phase I

Achievement Test

Frequency Distribution by School

Total Score (26 items)	Mt. Oliver	Beechwood	Letsche	Madison	Vann	Holmes	West Liberty	Forbes
25 - 26	0	17	0	0	2	0	8	0
23 - 24	6	26	1	7	7	4	18	0
21 - 22	6	21	2	8	7	2	10	2
19 - 20	6	10	5	17	7	8	5	3
17 - 18	5	5	2	6	8	5	1	6
15 - 16	3	2	1	4	6	2	0	1
13 - 14	1	1	1	3	1	2	0	3
11 - 12	0	0	2	3	1	0	0	2
9 - 10	0	0	0	0	0	0	0	0
7 - 8	0	0	0	0	0	0	0	1
5 - 6	0	0	0	0	0	0	0	0
3 - 4	0	0	0	0	0	0	0	0
1 - 2	0	0	0	0	0	0	1	0
Missing Data	0	0	0	0	0	5	0	0
Total Number	27	82	14	48	39	28	43	18
Mean Score	20.037	22.195	17.857	18.958	19.462	19.087	22.302	16.222

Student Attitude

Attitude scores indicate that students enjoyed their initial experience in Career Orientation. Table VI shows the mean total attitude scores by school. The overall mean of 20.75 out of a possible 24 reveals that students liked the Career Orientation program. In addition, there were no significant differences between the attitude of boys and girls. The program seemed to be equally enjoyable for both. The data indicates that students in the Forbes and Holmes Schools had the poorest attitudes toward the project. The mean score at Forbes was 16.56% and 17.21% at Holmes.

TABLE VI
Phase I
Attitude Data
Mean Total Score by School

School	Mean	Standard Deviation	Number
Mt. Oliver	22.63	1.69	27
Beechwood	22.00	1.83	82
Letsche	21.21	2.91	14
Madison	20.73	3.08	48
Vann	21.08	2.74	39
Holmes	17.21	8.57	28
West Liberty	20.81	2.92	43
Forbes	16.56	3.76	18
Total	20.75	3.96	299

Mean Total Score by Sex

	Mean	Standard Deviation	Number
Male	20.76	3.12	143
Female	21.42	2.66	151

The open-ended responses provided an opportunity for students to state what they liked best about the OVT classes and what they liked least about the OVT classes. In the majority of instances, students responded by stating which subject of the OVT classes they most enjoyed--Foods and Nutrition ranked the highest. Students stated fewer aspects about the program which they

disliked; 45 stated they disliked nothing about Career Orientation and others identified a variety of subjects and activities which they disliked. However, no major trends emerged from either of these open-ended items.

Intercorrelation between Student Attitude and Performance

A Pearson product moment correlation coefficient was computed to determine the relationship between student attitude toward Phase I and student performance on the Phase I achievement test. This analysis based on a sample of 294 subjects yielded a correlation coefficient of .29 which was significant at the .01 level. This indicates that there is a significant relationship between student attitude toward Phase I and their performance on the Phase I achievement test.

Summary of Student Attitude

Students liked the program and seemed to enjoy the activities in which they participated. Student attitude was very positive on all the scaled items; on the open-ended items students indicated very few aspects of the program with which they were dissatisfied.

Classroom Teacher Attitude

A questionnaire was submitted to Phase I classroom teachers whose students were enrolled in the schools sampled in the Career Orientation program. Teachers were asked to comment on their opinion of the OVT impact on their students. Responses were received from eight out of 19 teachers.

Generally, the teachers agreed that the OVT experience was a positive one. Each teacher contributed individual illustrations. For example, some teachers thought that students became more career oriented, aware of the future and of potential job opportunities. Others cited less occupational illustrations such as student anticipation of the OVT class, student enjoyment, student pride with individual achievement, and student interest in some tutorial aspects of the class.

Teachers indicated that overall, students did learn about OVT as a result of this initial experience. They felt that although there was

little academic value to this class, the students realized that this was an introduction to a more intense investigation of jobs and the specific skills required to perform those jobs. In addition, students developed some skills in the Phase I class such as sewing and cooking.

Six teachers stated that there were areas where the OVT classes and the regular classes could be linked. OVT provided an opportunity to apply mathematical skills in computing grocery lists, measuring ingredients, etc. But no planned attempt was made to coordinate specific classroom lessons with OVT lessons. Two teachers felt that no link was being made at all. There seems to be little formal or informal communication between the regular classroom teachers and the OVT teachers. The links which do exist are based on individual teachers' plans and not an integral part of the curriculum. Six teachers stated that information on classroom lessons was not given to the itinerant teams. Two indicated that not only were they unaware of the team's schedule, but they seldom talked to any member of the itinerant team and they had not been asked to supply information about what was taught in the regular classes. Some suggested that students be given homework which linked the two classes, or that there be a follow-up on projects which would provide a link (although this was not defined). One teacher indicated that it was not necessary to formally establish a line of communication if the link was to be very general. Two teachers suggested that regular meetings be set up at each school between the two types of teachers or that in-service meetings be used to exchange information and coordinate learning activities.

The teachers suggested several program changes: (1) students were proud of their accomplishments and perhaps these completed products could be displayed, (2) the objectives should be reduced to a more manageable number because too many activities were being crammed into the program, (3) longer time periods should be spent on fewer projects, (4) team teaching ought to be implemented more extensively so that learning activities can be prepared by all teachers, and (5) fifth graders should receive some orientation about the nature of OVT Phase I and the activities involved.

Summary of Classroom Teacher Questionnaire

The classroom teachers appear to be satisfied with the overall concept and operation of the Phase I program. The responses suggest that students enjoy the activities while learning some information about OVT and job opportunities. However, the lack of communication and coordination between the classroom teachers and the OVT teachers appears to be one area where the program should be strengthened. If one of the program objectives is to establish a link between these classes and such a mechanism has been built into the Phase I syllabus, then the process ought to be operational. Instead of OVT functioning as a separate activity period where students create products and learn about jobs, they would be able to link OVT activities with their regular classroom experience. This process can be operational in two ways. One is to incorporate or set aside some time during in-service meetings for these teachers to meet and plan some strategies and activities. The other would be to set aside a few minutes during the OVT team's visit to brief one another on the activities in each class and the anticipated plans for the coming week. Even if the teachers did not combine lesson plans, this would increase the interface between the two classes.

Itinerant Teachers' Attitude

Out of six itinerant teachers, only two teachers responded to the questionnaire. Although a low response does not permit a discussion of general feelings, it does indicate some feeling and opinion about teacher participation in Phase I.

This questionnaire was designed primarily to obtain teachers' opinions on their training for this program and the program operations. Their responses indicated that in-service training should occur prior to the beginning of classes and throughout the school year. Training should include orientation about teaching strategies which help meet the objectives of the Career Orientation program. A suggestion was made that specific guidelines be written about what is to be taught in the 6th grade. The training received by these teachers included: (1) learning about the middle school philosophy and its relationship to OVT and Career Orientation, (2) group dynamics sessions, (3) learning about the nature of the student enrolled

in Career Orientation, (4) learning about teaching strategies which help meet Career Orientation objectives.

One teacher felt that the syllabus prepared for Phase I teachers had not been a satisfactory guide for teaching Career Orientation because although the conceptual framework was sound, the implementation of activities was insufficient to meet student needs. (Student needs were not defined.) The other teacher felt the syllabus was useful, but needed additional work if it was to provide a useful basis for linking OVT activities to academic activities. Teaching activities were sometimes coordinated with other team members. This teacher stated that the most effective aspect of Career Orientation was the hands-on activities; the least effective element was the lectures, paper and pencil work, and correlation with regular classroom activities. Student interest and the teacher-student relationship created by this program ranked high among the things one teacher liked best; attempting to satisfy administrators, supervisors, principals, classroom teachers, and many students plus rushing from school to school were listed as those things liked least. These teachers did not know whether the program succeeded in helping students select their course of study for the next year, but did indicate that most students seemed to enjoy the Phase I Career Orientation program.

Summary of Itinerant Teachers' Attitude

During the evaluation of this program last year, the itinerant teachers expressed a desire to actively participate in curriculum changes and modifications. At that time, the evaluation was cited by AIR as an opportunity for these teachers to express their opinions about the program and to suggest changes for program improvement. Three new teachers were added to the itinerant group--making a total of six. Yet only two members of these two teams invested time to complete this questionnaire.

Appendix A

Student Achievement Test

Phase I

Student Achievement Test

Circle the number preceding the best answer for each of the following questions.

1) When you buy candy, you are a:

1. seller 2. producer 3. consumer 4. manufacturer

2) You can communicate with another person by:

1. talking 2. writing 3. touching 4. all of these

3) A car is an example of:

1. a mass produced item
2. a form of communication
3. a measuring device
4. a natural product

4) You should wear safety glasses when you:

1. sew 2. weld 3. cut 4. saw

5) Sheet metal is cut with:

1. scissors 2. a knife 3. a saw 4. a razor

6) When you silkscreen, the ink is pushed through the screen with:

1. a knife 2. a spoon 3. a squeegee 4. your hand

7) Which of the following are <u>usually</u> not mass produced:

1. cars 2. stoves 3. radios 4. watercolor paintings

8) How many sides does a triangle have?

1. (1) 2. (2) 3. (3) 4. (4)

9) What do you use to make a straight line?

1. T-square 2. screwdriver 3. nails 4. scissors

10) Which of the following is an example of a synthetic material?

1. cotton 2. silk 3. wool 4. nylon

11) Which of the following is used to fasten two pieces of wood together?

1. shears 2. nails 3. welder 4. putty

12) A hot iron can be used on which of the following materials?

1. polyester 2. cotton 3. nylon 4. dacron

13) You are usually part of a group when you:

1. are in school
2. are at work
3. play baseball
4. all of the above

14) Which of the following groups of foods contain the four basic foods?

1. candy, soft drink, hamburger, french fries
2. bread, steak, peas, milk
3. steak, baked potato, home fries, pop
4. apple turnovers, fish, hot dogs, milk

15) It is a good idea to wash your hands before:

1. using a hammer
2. working in a garden
3. fixing your bicycle
4. working with food

16) OVT stands for:

1. Occupational, Vocational & Technical
2. Other Vocational Training
3. Otherwise Very Terrible
4. Often Very Tiring

17) The tool used to draw on metal is called a:

1. pencil 2. scratch awl 3. fingernail 4. knife

18) Liquids should be measured in a:

1. measuring cup 2. ruler 3. scale 4. all of the above

19) If you were a busboy in a cafeteria, what would your job be?

1. to prepare food
2. to clear tables after people finish eating
3. to supervise other workers
4. to buy food for the cafeteria

20) A budget helps people:

1. spend money quickly
2. earn more money
3. decide how much money they can afford to spend for things they want and need
4. all of the above

21) You may buy a product because:

1. you have seen the product
2. friends have told you about a product they liked
3. you heard an advertisement about the product
4. all of the above

TRUE or FALSE:

22) You cannot backspace on a typewriter.

1. True 2. False

23) It is necessary for the receiver of a message to understand what the sender is saying in order for them to communicate.

1. True 2. False

24) You use the shift key on the typewriter to make small letters.

1. True 2. False

25) Learning to use tools the right way helps prevent accidents.

1. True 2. False

26) You can communicate without speaking.

1. True 2. False

Appendix B

Student Questionnaire

Phase I

SELECTED FUNCTIONAL COMPONENTS OF A VOCATIONAL EDUCATION COUNSELING SYSTEM FOR URBAN YOUTH

Sponsor: Pittsburgh Board of Education
341 South Bellefield Ave.
Pittsburgh, Penna. 15213

Evaluation Instruments Prepared and Distributed by:
American Institutes for Research
710 Chatham Center Office Building
Pittsburgh, Penna. 15219

Career Orientation Phase I

Student Questionnaire

Name _____ School _____

Sex (1) _____ Male (2) _____ Female

DIRECTIONS: Circle the number which tells how you feel about the following statements.

	Agree	Undecided	Disagree
1. I enjoyed the activities in OVT.	3	2	1
2. I learned how to get along with other people.	3	2	1
3. I learned some things about myself.	3	2	1
4. I learned about the kinds of activities people do in some jobs.	3	2	1
5. I enjoyed showing other people how to do their work.	3	2	1
6. I enjoyed making products in OVT.	3	2	1
7. I enjoyed working with other people.	3	2	1
8. Some things I learned in my OVT classes helped me understand some things I learned in my regular classes.	3	2	1

9. What did you like best about your OVT classes? _____

_____

10. What did you like least about your OVT classes? _____

_____

Appendix C

Classroom Teachers' Questionnaire

Phase I

SELECTED FUNCTIONAL COMPONENTS OF A VOCATIONAL EDUCATION COUNSELING SYSTEM FOR URBAN YOUTH

Sponsor: Pittsburgh Board of Education
341 South Bellefield Ave.
Pittsburgh, Penna. 15213

Evaluation Instruments Prepared and Distributed by:
American Institutes for Research
710 Chatham Center Office Building
Pittsburgh, Penna. 15219

Career Orientation Phase I

Classroom Teachers' Questionnaire

Please answer these questions as comprehensively as possible. You will in no way be personally identified with your responses. Please mail the completed questionnaire to AIR in the self-addressed return envelope.

Thank you for your participation.

1. In your opinion, what impact have the OVT classes had on your students?

_____

_____

_____

2. In your opinion, what have your students learned about OVT based on this year's experience? _____

_____

3. Do you think there is a link being made between the OVT classes and the regular classes? _____ If so, please describe how this link is made.

_____

_____

4. How do you provide information for the itinerant teachers to use in linking OVT and the regular classes? _____

_____

What do you think would be a more effective way? _____

_____

5. If you were directing this program, what changes would you make which would more effectively meet the program's objectives?

_____

_____

Appendix D

Itinerant Teachers' Questionnaire

Phase I

SELECTED FUNCTIONAL COMPONENTS OF A VOCATIONAL EDUCATION COUNSELING SYSTEM FOR URBAN YOUTH

Sponsor: Pittsburgh Board of of Education
341 South Bellefield Ave.
Pittsburgh, Penna. 15213

Evaluation Instruments Prepared and Distributed by:
American Institutes for Research
710 Chatham Center Office Building
Pittsburgh, Penna. 15219

Career Orientation Phase I

Teachers' Questionnaire

Please answer these questions as comprehensively as possible. You will in no way be personally identified with your responses. Please mail the completed questionnaire to AIR in the self-addressed return envelope.

Thank you for your participation.

1. In your opinion, when should in-service training for the Career Orientation program take place? (check appropriate answers)

   _____ before classes begin

   _____ after classes begin

   _____ throughout the school year

2. Which of the following types of in-service training would be most helpful in teaching Career Orientation?

   _____ a. learning about the middle school philosophy and its relationship to OVT and Career Orientation

   _____ b. group dynamics sessions

   _____ c. learning about the nature of the student enrolled in Career Orientation

   _____ d. learning about teaching strategies which help meet Career Orientation objectives

   _____ e. other (please describe) _____

   _____

   _____

3. Which of the following types of in-service training have you received as a Career Orientation teacher?

   _____ a. learning about the middle school philosophy and its relationship to OVT and Career Orientation

   _____ b. group dynamics sessions

   _____ c. learning about the nature of the student enrolled in Career Orientation

   _____ d. learning about teaching strategies which help meet Career Orientation objectives

   _____ e. other (please describe) _____

   _____

   _____

4. Has the syllabus for this course been a satisfactory guide for you to use in teaching Career Orientation? _____ If not, please explain.

_____

_____

_____

5. Do you usually coordinate teaching activities with other members of your team? _____

6. In your opinion, what aspect of the Career Orientation program is most effective?

_____

_____

7. In your opinion, what aspect of the Career Orientation program is least effective?

_____

_____

8. What do you like best about teaching Career Orientation? _____

_____

_____

9. What do you like least about teaching Career Orientation? _____

_____

_____

10. Has the program succeeded in helping students select their course of study for next year?

_____ Yes _____ No

11. Do you think students enjoyed the Career Orientation program?

_____ Yes _____ No

Appendix E

Objectives

Phase I

UNIT I - HUMAN RELATIONS-PERSONAL DEVELOPMENT

SPECIFIC OBJECTIVES

The student will:

- identify his personal characteristics after participating in self-awareness activities
- identify similarities and differences between himself and other members of the group after participating in group activities
- identify the procedures necessary to become a group member by participating in group membership processes
- identify sensible mental and physical habits that promote good health by participating in specific health and nutrition activities.

UNIT II -- PRODUCTION
SPECIFIC OBJECTIVES

The student will:

- practice safe work habits by correctly using properly maintained equipment
- identify specific natural and synthetic materials
- list four differences between natural and synthetic materials
- participate in activities which involve use of physical properties of natural and synthetic materials
- identify and list functions of specific materials
- identify and list the differences between mass-produced and manually-produced articles
- use two methods of production (mass and manual) to produce specific articles
- construct a product by applying specific design principles
- identify and list the purposes of packaging articles by constructing a container for a specific product

UNIT III - COMMUNICATIONS

SPECIFIC OBJECTIVES

The student will:

- demonstrate three ways in which people communicate with sounds, signs and symbols
- list three ways in which communication is important to any civilization
- use the four major elements--message, sender, receiver, and media--of communication to prepare four communications
- define in writing three purposes for which communication is used
- demonstrate three visual and three verbal methods used to convey messages
- identify and list two methods of storing and recalling materials
- use two different methods to keep records

UNIT IV - CONSUMERSHIP

SPECIFIC OBJECTIVES

The student will:

- identify three components of monetary exchange from a given list
- buy and/or sell one product and one service to another class member
- demonstrate one way to allocate money by preparing a budget
- identify and list three factors which influence product purchase contained in two advertisements in the mass media
- identify five economic principles of production by using a prepared code list to calculate production costs for a specific product
- illustrate five phases of marketing (i.e., displaying, buying, selling) by setting up a market

Phase II

Phase II -- 7th Grade

Career Orientation students in the 7th grade originate from 45 feeder schools and are assigned to one of four locations:

Location	Enrollment
Arsenal	678
Washington Education Center	805
South Side Education Center	1076
Oliver	291
Total	2850

Each Phase II student attends one half-day Career Orientation session per week. The purpose of Phase II is to involve students in "hands-on" activities in ten vocational areas. These activities provide students with knowledge and experience about career opportunities in these areas. At the end of the year, students select four vocational areas which they would like to explore in Phase III -- 8th grade.

The ten content areas represent various occupational careers which people may choose within the disciplines of Business Education, Home Economics and Industrial Arts. These ten content areas are:

Business Education	Home Economics	Industrial Arts
Business Communications	Foods & Nutrition	Manufacturing
Merchandising	Clothing & Textiles	Power & Transportation
Information Processing	Community Services	Construction
		Visual Communications

OVT exploratory programming is guided by teachers and paraprofessionals who work in teams to organize and supervise activities in each of the content areas. Students participate in as many simulated world of work activities as possible within each content area, and in so doing, create products which will be sold in a retailing activity. The retailing activity represents the culmination of a business activity and is held following the conclusion of each exploratory cycle, therefore students participate in three retailing activities per year. During this time, students can purchase items which they and their colleagues have been producing throughout

the cycle. In addition, a new merchandising activity has been added to the curriculum. Students can also attempt to sell their products via a catalog or door to door. This expands the exploratory experiences related to the distribution of goods and the concept of a business which is an integral part of the Phase II curriculum.

Student activities are coordinated as a business venture within the world of work. As part of the business, each content area serves the following functions:

Disciplines	Function
Business Education	Managerial and Clerical Support
Industrial Arts	Production
Home Economics	Service and Production

For example, Business Education may organize a business which retails goods; it then handles functions such as Business Communications, Merchandising and the Information Processing required to conduct the business activities. Examples of business simulations were a boutique shop and jewelry store.

In order to efficiently organize the exploratory program, teachers were assigned to work in teams. Three teams, each consisting of one teacher from each of the three major subject areas, were formed as a self-contained unit. Students were assigned to one team and received instruction within each of the ten areas from the three teachers to whom they had been assigned.

An example of team functioning is illustrated by the following: A team is formed consisting of three teachers, one from Home Economics, one from Industrial Arts and one from Business Education. Activities are coordinated within the team to establish a simulated business activity. An office is set up within the Business Education component, goods are produced in Industrial Arts, the Home Economics segment assumes responsibility for establishing a cafeteria. Within each area, a wage scale is set up for each job classification; students are paid according to the tasks performed. The currency would be either in script or in tokens which are then used for purchasing items in the cluminating activity of the nine-week cycle--the merchandise mart.

The conceptual framework of a business supplies a series of opportunities for all students to explore career opportunities in the three major content areas. At the conclusion of the school year, each student is requested to select four areas which he desires to explore further in the next stage of the Career Orientation program--Phase III -- 8th grade.

Evaluation Method

Development of the Instruments

As previously discussed, an interactive process was utilized in order to construct data collection instruments designed specifically for this phase of the project. Both staff members and the evaluation team worked together to build these instruments. A member of the evaluation team met with a representative of each content area from each school to discuss the role of the teachers in the evaluation. A representative from each school was asked to be responsible for gathering four test items on each subject; teachers in each school were therefore asked to produce 36 items. From these items, the teachers were asked to review the attitude questionnaires administered to them last year; they were requested to comment on the relevance and usefulness of the questions for this year's evaluation.

The assessment instruments for Phase II included: (1) a criterion reference test consisting of 45 items designed to measure the performance level of the students exposed to the Phase II Career Orientation program (see Appendix F); (2) a student attitude questionnaire consisting of five objective items plus two open-ended response items (see Appendix G); (3) a teacher questionnaire consisting of six objective items and five open-ended response items designed to produce data about the practical functioning of the program and to receive suggestions for program improvements (see Appendix H). Although the same teachers were assigned to both Phase II and Phase III, the teachers were asked to complete the same questionnaire twice--once in response to the work on Phase II, and once in response to the work in Phase III.

Administration of the Instruments

A member of the evaluating team visited each of the four sites to administer the achievement test and the student attitude questionnaire. The following sites participated in the evaluation:

OVT Center	Sample Size
South Side	102
Washington	84
Arsenal	85
Oliver	54
Total	325 = 11.4 % of total enrollment

During the administration of the instruments to the students, attitude questionnaires were distributed to the teachers, along with a request to return the completed form in a self-addressed envelope to AIR. The teachers were assured that they would in no way be personally identified with their responses. Thirty teachers each received two questionnaires.

Results and Discussion

The data collected from the evaluation of Phase II of the Career Orientation program fall into three major categories:

1. Student performance data based on an evaluation instrument prepared in cooperation with the Phase II Career Orientation classroom teachers.
2. Student attitude data based on a questionnaire consisting of scaled items for each of the areas covered plus two open-ended responses.
3. Teacher attitude data based on a questionnaire submitted to 30 participating teachers in the Phase II and Phase III programs.

Each of these categories will be discussed separately.

Student Performance

The overall mean score achieved by students was 27.632 out of a total possible score of 45. Students correctly responded to approximately 61% of the items. Table VII shows a breakdown of the mean total achievement scores by OVT Center. There was a significant difference in mean test performance among the four OVT Centers.

TABLE VII
Phase II
Achievement Test
Mean Total Score by OVT Center

	Mean	Standard Deviation	Number
South Side	25.127	8.932	102
Washington	30.929	6.432	84
Arsenal	27.341	8.260	85
Oliver	27.130	7.626	54

Analysis of Variance

	Sum of Squares	Degrees of Freedom	Mean Square	F Ratio
Between Groups	1570.6562	3	523.5521	8.2772
Within Groups	20304.1130	321	63.2527	
TOTAL	21874.7692	324		

A further breakdown showing the feeder or home schools participating in the evaluation is provided in Table VIII.

Table XI presents the achievement test subscores by OVT Center. All four centers obtained the highest scores in Community Services and Foods and Nutrition. All four centers obtained their lowest scores in Manufacturing; three centers scored next to the lowest in Merchandising.

Summary of Student Performance Data

Mean student performance on the Phase II achievement test resulted in 61% of the items being answered correctly. Project management should investigate why average achievement was limited to only 61%. One significant difference between the evaluation results of last year and this year can be seen in the proportion of students in the OVT Centers who received instruction in all content areas. Last year, only four students in the one center received instruction in all content areas. This year, unless a feeder or home school joined the OVT program following the starting date, all students participating in Phase II received instruction in all content areas.

TABLE VIII
Phase II

Achievement Test
Mean Total Score by Home School

School	Mean	Standard Deviation	Number
West Liberty	26.10	8.98	21
Brookline	29.38	9.39	13
Overbrook	23.54	9.58	26
Frick	20.95	8.80	21
Mt. Oliver	27.67	5.99	21
Sunnyside	36.58	4.08	12
Fulton	34.60	7.30	5
Rogers	24.20	6.65	15
St. Raphael	31.88	5.23	26
St. Mary's	30.54	4.81	26
Colfax	33.70	3.74	10
Regent Square	28.20	8.97	10
Swisshelm	27.75	7.30	8
Arsenal	23.29	8.02	42
St. Bede	33.67	3.48	15
Columbus	26.26	8.53	34
St. Gabriel	28.60	5.69	20

TABLE IX

Phase II

Achievement Test
Frequency Distribution by Center

Total Score (45 Items)	South Side	Washington	Arsenal	Oliver
44 - 45	6	8	5	2
42 - 43	8	6	7	4
40 - 41	7	11	10	5
38 - 39	4	7	7	5
36 - 37	7	8	12	5
34 - 35	7	6	4	5
32 - 33	7	12	5	3
30 - 31	6	2	5	4
28 - 29	6	2	7	6
26 - 27	5	6	0	6
24 - 25	8	3	3	0
22 - 23	3	3	3	1
20 - 21	5	2	2	2
18 - 19	5	0	1	1
16 - 17	7	2	6	2
14 - 15	4	0	3	0
12 - 13	4	0	3	1
10 - 11	0	0	0	0
8 - 9	2	0	1	1
6 - 7	0	0	0	0
4 - 5	0	0	0	1
2 - 3	0	0	0	0
0 - 1	0	0	0	0
MEAN SCORE	28.689	35.762	32.059	31.370

TABLE X

Phase II

Item Analysis of Achievement Test by OVT Center
Percentage of Students Selecting the Correct Response

ITEM	South Side	Washington	Arsenal	Oliver
1	57.3	71.4	54.1	40.7
2	65.0	92.9	82.4	79.6
3	70.9	86.9	77.6	74.1
4	52.9	71.4	71.8	75.9
5	44.7	65.5	45.9	48.1
6	60.2	63.1	36.5	64.8
7	53.4	82.1	68.2	55.6
8	80.6	97.6	82.4	90.7
9	81.6	91.7	89.4	85.2
10	87.4	94.0	84.7	100.0
11	45.6	53.6	71.8	48.1
12	47.6	77.4	62.4	50.0
13	71.8	86.9	87.1	83.3
14	84.5	89.3	84.7	96.3
15	65.0	79.8	68.2	79.6
16	56.3	84.5	44.7	68.5
17	30.1	47.6	45.9	38.9
18	37.9	39.3	36.5	35.2
19	59.2	78.6	74.1	66.7
20	39.8	27.4	42.4	31.5
21	31.1	41.7	58.8	31.5
22	63.1	83.3	68.2	74.1
23	68.0	76.2	80.0	74.1
24	80.6	96.4	84.7	88.9
25	46.6	81.1	47.1	51.9
26	48.5	56.0	65.9	57.4
27	42.7	56.0	42.4	37.0
28	60.2	61.9	54.1	87.0
29	56.3	67.9	52.9	40.7
30	60.2	71.4	63.5	59.3
31	47.6	71.4	63.5	59.3
32	50.5	64.3	45.9	42.6
33	50.5	71.4	52.9	55.6
34	30.1	53.6	29.4	16.7
35	65.0	71.4	64.7	77.8
36	51.5	59.5	69.4	51.9
37	35.9	42.9	44.7	31.5
38	67.0	88.1	76.5	83.3
39	67.0	89.3	78.8	74.1
40	48.5	41.7	42.4	42.6
41	39.8	53.6	61.2	42.6
42	63.1	81.0	62.4	70.4
43	64.1	82.1	68.2	83.3
44	32.0	42.9	34.1	38.9
45	62.1	71.4	56.5	75.9

TABLE XI

Phase II

Achievement Test
Subscore by OVT Center

	South Side			Washington			Arsenal			Oliver		
	M	SD	N	M	SD	N	M	SD	N	M	SD	N
Clothing & Textiles	2.58	1.30	102	3.23	.95	84	2.87	1.16	85	2.70	.98	54
Community Services	3.67	1.37	102	4.29	.93	84	3.61	1.32	85	3.96	1.13	54
Foods & Nutrition	3.18	1.29	102	3.87	.99	84	3.74	1.23	85	3.57	1.19	54
Manufacturing	2.25	1.33	102	2.77	1.01	84	2.44	1.21	85	2.41	1.00	54
Construction	2.92	1.40	102	3.80	1.12	84	3.39	1.36	85	3.20	1.29	54
Visual Communications	2.71	1.23	102	3.13	1.30	84	2.79	1.45	85	2.81	1.21	54
Merchandising	2.46	1.48	102	3.32	1.35	84	2.56	1.50	85	2.52	1.34	54
Business Communications	2.73	1.52	102	3.21	1.13	84	3.12	1.25	85	2.83	1.40	54
Information Processing	2.64	1.43	102	3.31	1.36	84	2.82	1.49	85	3.11	1.44	54
TOTAL	25.13	8.93	102	30.93	6.43	84	27.34	8.26	85	27.13	7.63	54

Student Attitude

Data from student attitude questionnaires suggest that students enjoyed the Phase II activities. Table XII summarizes the questionnaire data by OVT Center and overall. Within a range of three choices, each assigned a numerical value (1-3 with 3 the most positive); the vast majority of overall item mean scores were over 2. In addition, most students indicated that Phase II activities helped them to select the four subject areas they would like to explore further in Phase III. Only four out of 325 students said Phase II did not help make this decision; 203 students responded that it helped a lot.

The open-ended response items provided students the opportunity to indicate what they liked best and least about the program. Most students responded by stating which areas they enjoyed best or least. Some students suggested that the best aspect of Phase II was the chance to learn about career opportunities. This indicates that one of the major program objectives was achieved. Student responses were not as varied this year as last. The responses to aspects of the program enjoyed least by students were identifications of specific subject areas. No major trends were identified which indicated a general negative attitude about the program.

TABLE XII

Phase II

Summary of Student Questionnaire Data
by Center plus Overall Mean

The following scaled items are included in the attitudinal questionnaire:

Item

1 offered these choices:

I like it very much (3) It was OK (2) I didn't like it (1)

	South Side	Washington	Arsenal	Oliver	Overall Mean
1. Business Education					
Information Processing					
Choice 1	15	30	12	2	
2	55	42	55	24	1.97
3	29	9	16	22	
Business Communications					
Choice 1	8	16	12	1	
2	54	32	32	22	2.05
3	34	13	38	31	
Merchandising					
Choice 1	14	26	4	1	
2	43	41	33	16	2.18
3	42	17	45	29	
Home Economics					
Clothing and Textiles					
Choice 1	28	15	18	2	
2	40	36	28	16	2.05
3	29	32	39	23	
Food and Nutrition					
Choice 1	3	3	7	1	
2	30	10	28	22	1.90
3	65	70	48	29	
Health & Community Svcs.					
Choice 1	31	17	22	5	
2	41	16	31	24	2.05
3	23	49	29	21	
Industrial Arts					
Construction					
Choice 1	11	8	26	5	
2	39	29	20	15	2.25
3	48	46	36	28	

	South Side	Washington	Arsenal	Oliver	Overall Mean
Manufacturing					
Choice 1	10	7	11	7	
2	40	35	28	11	2.32
3	49	40	42	33	
Visual Communications					
Choice 1	8	11	7	6	
2	33	28	23	13	2.26
3	55	40	52	23	

Items

2 - 4 offered these choices:

Agree (3) It was OK (2) Disagree (1)

	South Side	Washington	Arsenal	Oliver	Mean
2. Business Education					
a. Choice 1	10	21	2	3	
2	51	41	41	15	2.32
3	41	22	42	36	
b. Choice 1	2	11	7	1	
2	29	15	24	7	2.59
3	71	58	54	46	
c. Choice 1	11	7	4	2	
2	30	16	30	14	2.58
3	61	61	51	38	
d. Choice 1	17	20	18	3	
2	32	32	28	15	2.33
3	53	32	39	35	
e. Choice 1	21	16	10	15	
2	24	14	25	6	2.53
3	57	49	49	33	
3. Home Economics					
a. Choice 1	9	8	3	1	
2	36	16	21	20	2.55
3	55	60	61	31	
b. Choice 1	6	3	4	2	
2	30	13	28	12	2.61
3	64	68	53	38	
c. Choice 1	9	4	4	6	
2	33	15	22	13	2.56
3	57	65	59	33	
d. Choice 1	16	14	19	2	
2	36	24	21	16	2.31
3	46	46	45	32	

		South Side	Washington	Arsenal	Oliver	Overall Mean
e. Choice	1	14	8	7	8	
	2	20	12	20	14	2.37
	3	62	59	57	29	
4. Industrial Arts						
a. Choice	1	12	4	8	4	
	2	42	30	27	16	2.43
	3	46	50	49	32	
b. Choice	1	11	3	12	4	
	2	29	18	16	10	2.54
	3	60	62	57	38	
c. Choice	1	11	2	11	6	
	2	30	18	19	10	2.53
	3	59	64	54	36	
d. Choice	1	16	14	17	4	
	2	28	27	21	11	2.37
	3	56	43	46	37	
e. Choice	1	22	12	9	4	
	2	25	12	20	11	2.30
	3	48	54	50	36	

Item

5 offered these choices:

It helped a lot (3) It helped a little (2) It didn't help (1)

	South Side	Washington	Arsenal	Oliver	Overall Mean
5. Choice 1	0	1	3	0	
2	30	20	27	14	2.17
3	62	61	49	31	

Teacher Attitude

An attitude questionnaire was submitted to 30 Phase II Career Orientation teachers. The purpose of this questionnaire was to determine teachers' opinions about their training and the training they thought would be most helpful teaching in the Career Orientation program. In addition, they were asked to comment about general program operations and suggest recommendations for change. Fifteen (50%) teachers responded to this questionnaire.

Training

The teachers were asked to comment on two aspects of training: the type of in-service training they received both prior to and during their assignment to the Career Orientation program, and the type of training they thought would be most helpful in teaching Career Orientation. Eleven out of thirty teachers stated that during their training, they learned about the middle school philosophy and its relationship to OVT and Career Orientation only. Five teachers received training in group dynamics sessions, five learned about the nature of the student enrolled in Career Orientation, and only one stated that training had been given in teaching strategies unique to the Career Orientation program. A few teachers indicated that their personal work experience prior to joining the Career Orientation program provided help in this teaching assignment. Although some resource people had been invited to in-service training sessions, the teachers perceived this assistance as minimal. The teachers feel that the training they received did not adequately prepare them to teach this unique type of program. The sessions focused on the theoretical aspects of exploratory education and minimized the pragmatic strategies required to guide students through career orientation.

Program Operations

Teacher response concerning satisfaction and usefulness of the course syllabus revealed that nine teachers felt the syllabus had not been useful in teaching Career Orientation. The reasons given for this negative feeling about the course syllabus were: (1) the objectives were unrealistic

and difficult to obtain when using the methods suggested and (2) the suggested teaching strategies were too general with few specific methods for implementation. One teacher indicated that he/she did not have a syllabus. Five teachers stated that the curriculum guide had been a useful tool in fulfilling the Career Orientation objectives.

Most teachers usually coordinated their teaching activities with other members of their team. Twelve out of fourteen teachers coordinated activities; two did not.

General

An open-ended response asking teachers to state their opinion of the most effective aspect of Career Orientation indicated that the hands-on activities were overall considered the best segment of this program. Other aspects mentioned by one or two teachers included the retailing activity, outside films, speakers and discussions, plus the learning experience of working together on projects.

The teachers feel that the least effective aspect of the program is the student counseling required at the conclusion of the school year. This counseling activity is to be completed in one day and the teachers indicated that this was simply not enough time to properly counsel students in their selection of next year's program. Other aspects suggested by teachers as being the least effective included the retailing activity, the class size (too large), and the large number of careers which were to be covered in a short time period. Two teachers mentioned specific subject areas which they felt were weak -- Business Communications and Visual Communications.

When asked what they liked best about teaching Career Orientation, six teachers stated that the active involvement with students was very stimulating. The challenge offered by this program surpassed the challenge of teaching in a regular classroom. Some teachers liked their own learning experiences -- learning about products, types of careers, educational requirements, working closely with others, etc.

The thing the teachers liked least about teaching Career Orientation was that it didn't provide an opportunity to become acquainted with the students because the classes meet only once a week; in addition, a rotating schedule restricted the time spent on each subject area. As revealed in last year's evaluation, teachers commented that the stress on mass production rather than career orientation reduces the opportunity to achieve the primary objective of the program. A few teachers indicated that they were distressed with the administrative work they had to do -- such as counseling and record keeping.

Generally, twelve teachers believed that the program succeeded in helping students select their course of study for the next year and that the students had enjoyed the Career Orientation program.

Summary

The teachers seem to regard the Career Orientation program as professionally challenging and rewarding. Their responses indicate that they are interested in continual training in methods which will increase their effectiveness as teachers. The results also suggest that although they have been briefed in the middle school philosophy, the teachers have not received enough pragmatic tools with which to conduct and implement the objectives of Career Orientation. In addition to this questionnaire, informal conversations with some of these teachers throughout the course of this evaluation supported this general feeling. These teachers are embarking on a completely new and innovative learning situation which requires innovative training in methods and strategies. A number of teachers stressed that in-service training should focus more on how to achieve program goals than on group dynamics and the philosophy of the middle school.

Because 50% of the respondents indicated that the syllabus was unsatisfactory, perhaps a review of the syllabus or the curriculum objectives ought to be conducted by project management. Teachers may be asked to cite specific incidents where the syllabus is unworkable and revisions could be based on that.

Appendix F

Student Achievement Test

Phase II

Student Achievement Test

DIRECTIONS: You have been selected to help the teachers make changes in next year's OVT program. These questions were designed to find out how much you learned; your answers will be used to decide what changes need to be made. You will not receive a grade on this test.

Please circle one answer to each of the following items.

CLOTHING AND TEXTILES

**1. If you like to work with people rather than products, which of the following jobs would you probably enjoy?

1. machine operator 2. cutter 3. seamstress 4. manager

**2. Which of the following jobs would a creative person probably choose?

1. machine operator 2. cutter 3. quality control inspector 4. dress designer

*3. A person who sews clothing is called a:

1. pattern maker 2. retailer 3. cutter 4. seamstress

*4. When sewing a project, the correct order of construction is:

1. stitching, pressing, laying out pattern, cutting

2. laying out pattern, cutting fabric, pinning fabric together, stitching, pressing

3. cutting, laying out, pinning, stitching, pressing

*5. What job in the clothing and textiles industry usually needs additional training beyond high school?

1. a cutter 2. a fashion designer 3. a machine operator 4. all of these

COMMUNITY SERVICES

*6. If there is no reaction (no coagulation or lumps) to either anti-A or anti-B serum, then a person would have:

1. type A blood 2. type B blood 3. type AB blood 4. type O blood

*7. More education is required for:

1. a registered nurse 2. a practical nurse 3. an orderly 4. a nurse's aide

*8 A career in the health services field is:

1. a social studies teacher 2. a lawyer 3. an engineer 4. an x-ray technician

**9. A person who may assist the nurse in giving bedside care to a patient in the hospital is called a:

1. receptionist 2. nurse's aide 3. lab technician 4. social worker

**10. Most people have a normal temperature of:

1. 35.7 2. 100 3. 98.6 4. 75.8

FOODS AND NUTRITION

**11. Which of the following employees supervises the food preparation in a cafeteria?

1. business manager 2. chef 3. waitress 4. hostess

**12. A meal served buffet style means:

1. trays of food are passed to guests
2. guests select their choice of food from a menu
3. a waitress submits a guest's food order to the chef
4. guests make individual food selections from a variety of prepared foods centrally located in a dining room

*13. Using the basic four food groups, choose the most well-balanced menu from the list below:

1. potato salad, baked beans, peas, milk
2. hamburger, baked potato, tossed salad, milk
3. cooked squash, cole slaw, peaches, milk
4. corn chips, baked beans, chocolate cake, milk

**14. If you were a busboy in a cafeteria, what would your job be?

1. to prepare food
2. to clear tables after people finish eating
3. to supervise other workers
4. to buy food for the cafeteria

*15. Which of the following jobs frequently needs training beyond high school?

1. a short-order cook
2. waiter/waitress
3. a soda-jerk
4. a chef

MANUFACTURING

**16. To draw a design on metal work, which of the following tools would you use?

1. scratch awl 2. claw hammer 3. ball-peen hammer 4. cross-peen hammer

**17. When a machinist files a thin piece of metal he places it tight to the vise to avoid:

1. chattering 2. rust 3. burs 4. pressure

*18. Which of the following defines some type of mass-production?

1. Each person on the production line may do one or two operations.
2. A worker passes from one station to the next station until the article is finished.
3. The product moves on a conveyer from one worker to another.
4. All of the above.

*19. Which of the following list of careers in manufacturing requires a college degree?

1. furnace installer 2. auto body mechanic 3. mechanical engineer 4. pattern maker

*20. Patternmaking is an activity associated with:

1. plastics 2. metals 3. foundry 4. welding

CONSTRUCTION

*21. Mill marks found in wood are caused by:

1. sawing 2. termites 3. tree bacteria 4. sanding

*22. Which of the following is the proper order to use in finishing a wood product?

1. wax, stain, sand, varnish
2. sand, stain, varnish, wax
3. stain, sand, varnish, wax
4. varnish, stain, sand, wax

*23. A person who enjoys making things with wood might consider employment as a:

1. bricklayer 2. cabinet maker 3. foundry worker 4. typesetter

*24. A handsaw, hammer, wooden horse and nails are tools and equipment used by a:

1. carpenter 2. bricklayer 3. silk-screener 4. draftsman

*25. What wood working tool looks like an ice pick?

1. mitre box 2. awl 3. phillips screwdriver 4. framing square

VISUAL COMMUNICATIONS

**26. A compositor would work in which of the following settings?

1. a textile plant 2. a print shop 3. an automobile shop 4. an architect's office

**27. The following pieces of equipment -- T-square, Triangle, Scale, and Compass -- are used by:

1. a draftsman 2. a compositor 3. a book binder 4. an engraver

**28. Which of the following pieces of equipment is <u>not</u> used by a printer?

1. platen press 2. silk screen 3. french curve 4. offset press

*29. Which of the following career opportunities is <u>not</u> related to visual communications?

1. design technology
2. drafting
3. commercial art
4. legal secretary

*30. Knowledge of typesetting and printing will aid a person in getting a job in:

1. bricklaying 2. typing 3. newspaper work 4. woodworking

MERCHANDISING

*31. Which of the following individuals are involved in the merchandising process?

1. buyer 2. salesperson 3. inventory clerk 4. all of these

*32. The correct marketing sequence is:

1. the consumer to the producer to the retailer
2. the wholesaler to the retailer to the distributor
3. the producer to the retailer to the customer
4. the retailer to the distributor to the customer

**33. A person in the field of advertising designs a poster or a display to:

1. attract attention to his product
2. point out uses for his product
3. make people want to buy his product
4. all of the above

**34. Which of the following items must be removed from <u>gross</u> earnings before a retailer can compute <u>net</u> profit?

1. employee wages 2. rent 3. insurance 4. all of the above

**35. If an accountant depressed a "plus" key after each number he entered on a calculator, then depressed the "total" key, he would be:

1. adding 2. subtracting 3. multiplying 4. dividing

BUSINESS COMMUNICATIONS

*36. Communicating is the process of:

1. transmitting written information
2. transmitting oral information
3. both of these
4. none of these

*37. The federal government requires that each worker have:

1. a time card
2. a social security card
3. a personal data sheet
4. a high school diploma

*38. Which of the following kinds of information should <u>not</u> be included on a personal data sheet?

1. name
2. address
3. educational background
4. religion

*39. A secretary should be trained in:

1. typing
2. Business English
3. filing
4. all of these

**40. Which of the following occupations requires a college education?

1. secretary
2. file clerk
3. accountant
4. receptionist

INFORMATION PROCESSING

**41. Which of the following is <u>not</u> in correct alphabetical order?

1. Reagan, Reagen, Regan, Regen
2. Schmidt, Schmitt, Smidt, Smith
3. Andersen, Anderson, Andrew, Andrews
4. Johnsen, Johnston, Jonston, Johns

*42. When a punched card is used for recording information, the data on the card are represented by:

1. printed captions
2. magnetized spots
3. punched holes
4. none of these

*43. Data is another word for:

1. a book
2. a machine
3. information
4. a typewriter

*44. A job reference is:

1. a recommendation
2. a list of employees
3. an application
4. all of these

*45. The person who records information on an IBM card is called a:

1. file clerk
2. receptionist
3. keypunch operator
4. bookkeeper

Appendix G

Student Questionnaire

Phase II

Career Orientation Phase II

Student Questionnaire

Name _____ Home School _____

Sex (1) _____ Male (2) _____ Female

OVT School (1) ____South Side (2) ____Washington (3) ____Arsenal (4) ____Oliver

1. Circle the number which best expresses your feeling about each of the following:

	I like it very much	It was OK	I didn't like it
Business Education			
Information Processing	3	2	1
Business Communications	3	2	1
Merchandising	3	2	1
Home Economics			
Clothing and Textiles	3	2	1
Food and Nutrition	3	2	1
Health and Community Services	3	2	1
Industrial Arts			
Construction	3	2	1
Manufacturing	3	2	1
Visual Communications	3	2	1

2. Circle the number which represents your opinion of what you learned about the world of work in Business Education:

	Agree	It was OK	Disagree
a. I enjoyed the activities in this area.	3	2	1
b. I learned about the kinds of jobs available in this field.	3	2	1
c. I learned about what kinds of tasks people perform in various jobs.	3	2	1
d. I know what additional schooling is needed for various jobs in Business Education.	3	2	1
e. I learned enough to make a decision about whether I am interested in learning more about Business Education next year in OVT.	3	2	1

3. Circle the number which represents your opinion of what you learned about the world of work in Home Economics:

	Agree	It was OK	Disagree
a. I enjoyed the activities in this area.	3	2	1
b. I learned about the kinds of jobs available in this field.	3	2	1
c. I learned about what kinds of tasks people perform in various jobs.	3	2	1
d. I know what additional schooling is needed for various jobs in Home Economics.	3	2	1
e. I learned enough to make a decision about whether I am interested in learning more about Home Economics next year in OVT.	3	2	1

4. Circle the number which represents your opinion of what you learned about the world of work in Industrial Arts.

	Agree	It was OK	Disagree
a. I enjoyed the activities in this area.	3	2	1
b. I learned about the kinds of jobs available in this field.	3	2	1
c. I learned about what kinds of tasks people perform in various jobs.	3	2	1
d. I know what additional schooling is needed for various jobs in Industrial Arts.	3	2	1
e. I learned enough to make a decision about whether I am interested in learning more about Industrial Arts next year in OVT.	3	2	1

5. Circle the number that expresses your opinion about whether this year's OVT activities will help you choose the four subject areas you would like to participate in next year in OVT.

3 It helped a lot 2 It helped a little 1 It didn't help

6. What did you like best about OVT this year? _____

_____

7. What did you like least about OVT this year? _____

_____

Appendix H

Teachers' Questionnaire

Phase II

SELECTED FUNCTIONAL COMPONENTS OF A VOCATIONAL EDUCATION COUNSELING SYSTEM FOR URBAN YOUTH

Sponsor: Pittsburgh Board of Education
341 South Bellefield Ave.
Pittsburgh, Penna. 15213

Evaluation Instruments Prepared and Distributed by:
American Institutes for Research
710 Chatham Center Office Building
Pittsburgh, Penna. 15219

Career Orientation Phase II

Teachers' Questionnaire

Please answer these questions as comprehensively as possible. You will in no way be personally identified with your responses. Please mail the completed questionnaire to AIR in the self-addressed return envelope.

Thank you for your participation.

1. In your opinion, when should in-service training for the Career Orientation program take place? (check appropriate answers)

   _____ before classes begin

   _____ after classes begin

   _____ throughout the school year

2. Which of the following types of in-service training would be most helpful in teaching Career Orientation?

   _____ a. learning about the middle school philosophy and its relationship to OVT and Career Orientation

   _____ b. group dynamics sessions

   _____ c. learning about the nature of the student enrolled in Career Orientation

   _____ d. learning about teaching strategies which help meet Career Orientation objectives

   _____ e. other (please describe) _____

   _____

   _____

3. Which of the following types of in-service training have you received as a Career Orientation teacher?

   _____ a. learning about the middle school philosophy and its relationship to OVT and Career Orientation

   _____ b. group dynamics sessions

   _____ c. learning about the nature of the student enrolled in Career Orientation

   _____ d. learning about teaching strategies which help meet Career Orientation objectives

   _____ e. other (please describe) _____

   _____

   _____

4. Has the syllabus for this course been a satisfactory guide for you to use in teaching Career Orientation? _____ If not, please explain.

_____

_____

_____

5. Do you usually coordinate teaching activities with other members of your team? _____

6. In your opinion, what aspect of the Career Orientation program is most effective?

_____

_____

7. In your opinion, what aspect of the Career Orientation program is least effective?

_____

_____

8. What do you like best about teaching Career Orientation? _____

_____

_____

9. What do you like least about teaching Career Orientation? _____

_____

_____

10. Has the program succeeded in helping students select their course of study for next year?

_____ Yes _____ No

11. Do you think students enjoyed the Career Orientation program?

_____ Yes _____ No

Appendix I

Objectives

Phase II

GENERAL OBJECTIVES

Safety

The student will practice safe work habits by correctly using properly maintained equipment.

Business Communications

The student will demonstrate ability to perform tasks related to business by composing, typing, and duplicating selected examples of written and oral communications.

Health and Community Services

The student will explore career opportunities in Health and Community Services by identifying a specified number of jobs performed by these personnel.

Construction

The student will identify five occupations in the Construction trades from a given list. The student will demonstrate ability to use tools and materials of this field by constructing a specific product.

Merchandising

The student will list five career opportunities in the field of Merchandising. The student will demonstrate knowledge of marketing activities by participating in the distribution of a company's goods and services.

Clothing and Textiles

The student will identify career opportunities in the Clothing and Textiles industry from a given list. The student will demonstrate ability to perform tasks related to the Clothing and Textiles industry by laying out, cutting, sewing, and inspecting a specific article of clothing.

Visual Communications

The student will identify five career opportunities in the Communications field. The student will demonstrate knowledge of selected communications by performing specific tasks in engraving, silkscreening, relief printing, duplicating, designing, photo printing, binding, and proofreading.

Information Processing

The student will list five career opportunities in the field of Information Processing. The student will demonstrate ability to manually and mechanically process information by collecting, recording, tabulating and filing data.

Foods and Nutrition

The student will identify five careers available in the foods industry from a given list. The student will demonstrate ability to use selected tools and techniques in the foods industry by preparing a specific menu.

Manufacturing

The student will list five careers in the Manufacturing field. The student will demonstrate ability to use tools and materials in this field by producing a specific product.

Power and Transportation

The student will list five career opportunities related to the generation and control of various forms of power. The student will demonstrate knowledge of specific forms of power by using selected equipment to perform a specific task.

BUSINESS COMMUNICATIONS

The student will demonstrate ability to perform tasks related to business by composing, typing, and duplicating selected examples of written and oral communications.

SPECIFIC OBJECTIVES

The student will demonstrate ability to perform selected tasks in specified areas of Business Communications by:

- performing five clerical duties which require the use of various types of equipment employed by receptionists and clerk typists.
- role playing a news reporter or related occupation in order to interview people, then composing the information gained from the interview into a news item.
- role playing a news reporter or a related occupation in order to report in the form of a news item on a specific topic.
- role playing an office manager and directing the proper use of office equipment, production of materials and work flow within the communications office.

HEALTH AND COMMUNITY SERVICES

The student will explore career opportunities in Health and Community Services by identi ying a specified number of jobs performed by these personnel.

SPECIFIC OBJECTIVES

The student will demonstrate knowledge about tasks performed in selected occupations in Health and Community Services by:

- role playing a medical clerk and recording and filing health records.
- performing selected patient health care tasks normally executed by nurses' aides, first aid attendants, and other personnel in related fields.
- role playing a research lab technician and personnel in related fields by conducting tests according to prescribed standards.
- identifying community related activities and affairs from a given list for which recreation leaders, health education reporters, community services reporters, and other related personnel are responsible.

CONSTRUCTION

The student will identify five occupations in the Construction trades from a given list. The student will demonstrate ability to use tools and materials of this field by constructing a specific product.

SPECIFIC OBJECTIVES

The student will demonstrate knowledge about selected jobs and tasks in the Construction trades by:

- role playing a cabinetmaker apprentice, woodworker machine operator and similar personnel in related fields by producing a finished item from raw wood.
- serving as a stockcutter, layout man, or similar personnel in related fields by preparing rough stock for the construction process.
- serving as a cabinet assembler or similar personnel in related fields by assembling specific units into a final product.
- serving as a painter apprentice or similar personnel in related fields by performing the necessary t sks to prepare a surface, then paint or finish it.
- performing the necessary inspection tasks to maintain quality control of a product.
- acting as a foreman or similar managerial personnel by taking responsibility for the maintenance of tools, use of materials, labor employment, and supervising overall production in the work area.
- identifying, then making the necessary repairs on a defective product.

MERCHANDISING

The student will list five career opportunities in the field of Merchandising. The student will demonstrate knowledge of marketing activities by participating in the distribution of a company's goods and services.

SPECIFIC OBJECTIVES

The student will demonstrate knowledge about selected jobs and tasks in Merchandising by:

- role playing a salesclerk, cashier or equivalent personnel in related sales occupations and using various equipment and materials when applying selected sales techniques in specific sales situations.
- serving as a stock clerk or equivalent personnel in other related occupations to compile and compute inventory data related to the company goods and services.
- serving as an advertising layout man or equivalent personnel in related occupations and surveying market factors, designing advertisements and displays of the company's goods and services.
- role playing a store manager or related managerial personnel by supervising the flow of work activity within the Merchandising area, and by assuming responsibility for all maintenance of equipment and use of materials.

CLOTHING AND TEXTILES

The student will identify career opportunities in the Clothing and Textiles industry from a given list. The student will demonstrate ability to perform tasks related to the Clothing and Textiles industry by laying out, cutting, sewing, and inspecting a specific article of clothing.

SPECIFIC OBJECTIVES

The student will demonstrate knowledge about selected jobs and tasks in the Clothing and Textiles industry by:

- serving as a goods layer, a cutter, a pinner, or equivalent personnel by laying out, pinning, and cutting design patterns on fabric.
- serving as a piece-goods assembler or equivalent personnel in related fields by following the instructions to match the marked, cut goods, and then sewing assembled pieces.
- acting as a sewing machine operator or equivalent personnel in related fields by performing the steps necessary to prepare the machine for sewing, then safely operating the machine.
- serving as a hand finisher, trimmer, or equivalent personnel in related fields by using manual sewing techniques or specialized cutting techniques to complete clothing items.
- serving as a presser or equivalent personnel by pressing and folding goods.
- acting as a quality-control inspector or equivalent personnel in related fields by inspecting completed textile items for quality.
- acting as a floor supervisor or equivalent personnel in related fields by assuming responsibility for quantity and quality of mass-produced items.

VISUAL COMMUNICATIONS

The student will identify five career opportunities in the Communications field. The student will demonstrate knowledge of selected communications by performing specific tasks in engraving, silkscreening, relief printing, duplicating, designing, photo printing, binding, and proofreading.

SPECIFIC OBJECTIVES

The student will demonstrate ability to perform selected tasks in Visual Communications by:

- acting as a cutter, silkscreen printer, or a similar position in a related field and cutting and printing a silkscreen stencil.
- acting as an engraver operator or a similar job in related fields and preparing an engraved plate.
- acting as a relief printing apprentice, compositor, or similar personnel in related fields and preparing a relief plate, then printing it.
- acting as a platemaker, duplicator operator or a person in similar jobs in related fields by producing material on a duplicator.
- printing photograms and performing other tasks required by a person who works in a darkroom.
- designing a layout.
- by performing selected processes used by binders and persons who have similar jobs in related fields.
- proofreading, checking photographs, and performing related activities necessary to print good copy.
- acting as a foreman or a similar managerial position and assuming responsibility for the maintenance of tools and materials, labor employment when supervising production in the work area.

INFORMATION PROCESSING

The student will list five career opportunities in the field of Information Processing. The student will demonstrate ability to manually and mechanically process information by collecting, recording, tabulating and filing data.

SPECIFIC OBJECTIVES

The student will demonstrate ability to perform specific tasks in Information Processing by:

- collecting and recording employee-related information, assisting applicants in job placement, and performing other specified tasks normally performed by a personnel clerk or a similar employee.
- recording and tabulating all information related to employees' working time, wages and salary, and perform other specified tasks normally performed by a payroll clerk or similar personnel in related occupations.
- serving as a file clerk, card punch operator or similar personnel in related occupations by classifying, recording and filing information.
- serving as office manager or a job in a related managerial occupation by supervising an office work force, checking quality of work accomplished, and assuming responsibility for all equipment maintenance and materials used by or for the employees.

FOODS AND NUTRITION

The student will identify five careers available in the foods industry from a given list. The student will demonstrate ability to use selected tools and techniques in the foods industry by preparing a specific menu.

SPECIFIC OBJECTIVES

The student will demonstrate ability to perform specific tasks in Foods and Nutrition by:

- assuming supervisory responsibilities for the equipment maintenance, preparation of foods, service and employment in the foods area.
- serving as head cook/cook helper and selected other jobs in the preparation of specified quantity and quality of food items.
- serving as a kitchen helper or a similar person in other sanitation and maintenance fields and assisting the manager and cook in performing the duties necessary to maintain a safe and sanitary kitchen.
- acting as a bus boy/girl or a related job by servicing tables for customers.
- acting as a hostess/waiter/waitress/cashier or a similar job in a related field and selling and serving foods efficiently.
- serving as a counterman/girl or a job in a related field which requires performing specific tasks to operate a fast food service.

MANUFACTURING

The student will list five careers in the Manufacturing field. The student will demonstrate ability to use tools and materials in this field by producing a specific product.

SPECIFIC OBJECTIVES

The student will demonstrate ability to perform specific tasks in selected occupations of Manufacturing by:

- role playing a caster or foundry worker and pouring a casting.
- using selected manual and machine processes to shape metal as done by a machine shop apprentice and similar personnel in related occupations.
- constructing a metal product by using the techniques of a metal finisher, fabricator, assembler or similar personnel in related occupations.
- role playing a plastics mechanic and similar personnel in related occupations and using selected manual and machine processes to shape materials.
- role playing a plastics fabricator and forming and assembling plastic units into a finished product.
- maintaining quality control and repairing defective products as an inspector, repairman or similar personnel in related occupations.
- taking managerial responsibility for the use of tools and materials, employment of labor, and generally supervising work production.

POWER AND TRANSPORTATION

The student will list five career opportunities related to the generation and control of various forms of power. The student will demonstrate knowledge of specific forms of power by using selected equipment to perform a specific task.

SPECIFIC OBJECTIVES

The student will demonstrate knowledge about tasks performed by people in the fields of Power and Transportation by:

- assembling basic electrical devices used by apprentice electricians, electric assemblers, and people employed in related fields.
- testing specific equipment used by electrical continuity testers and appliance repairmen; identifying and replacing defective parts.
- role playing a service station attendant, a gasoline engine serviceman or a person employed in a related field by performing specific servicing operations on engines.
- role playing a foreman and other managerial positions by directing the proper use of tools, production of materials, labor employment and generally supervising the work flow in a specified production area.

Phase III

Phase III -- 8th Grade

Phase III of the Career Orientation program is a skill emphasis segment based upon teacher-student contracts. These contracts provide the framework for the study of a specific content area which a student, on the basis of his Phase II experience, has chosen for in-depth exploration. Each contract or learning activity package contains the purpose of the program of study, specific curricular objectives, sample evaluation questions, and activities and the resources available for exploration of the selected area, e.g. manufacturing.

If a student decides to terminate a contract, a new contract must be drawn up. This process is not designed to allow the student to casually make and break contracts; a contract can only be broken for good reason. According to the Phase III syllabus, teacher-guided contracts allow for "the widest divergence of individual interest."

During the 1971-72 school year, the Phase III curriculum was organized within the contract system into self-contained modules which could be implemented by the teacher within his/her specialized area. The time period spent by each student within that discipline varied according to the student's preference. Forty-five feeder schools sent 2711 students to the previously identified four OVT centers.

When the decisions for this year's evaluation activities were made, project management requested that the Phase III evaluation be limited to teachers' perceptions of the effectiveness of the program. It was felt that feedback from teachers would be extremely useful in making curricular and program changes for the second year of Phase III operation.

Teacher Attitude

The same teachers who were assigned to teach Phase II were also assigned to Phase III. Therefore, these teachers were asked to respond twice to the same questionnaire -- once based on their Phase II experiences and once on their Phase III experiences. The purpose of this was to determine teachers' attitudes toward the program and the effectiveness of Phase III operations. Fourteen questionnaires were received from thirty teachers.

The responses of this questionnaire suggest that teachers feel that in-service training should occur both before classes begin and throughout the school year. The types of in-service training for Phase III should parallel Phase II training (learning about the middle school philosophy and its relationship to OVT and Career Orientation, learning about the nature of the student enrolled in Career Orientation and learning about teaching strategies which help meet Career Orientation objectives). In addition, the teachers suggested that resource people be available for consultation, field trips be built into the curriculum, and a library be established at each education center.

The response to the usefulness of the Phase III syllabus indicated that 13 out of 14 teachers felt that the syllabus was an unsatisfactory guide for teaching Career Orientation because: (1) the suggested implementation procedures were too theoretical to be practical; (2) the guide was not developed fully enough to follow; (3) the objectives stated were too difficult to obtain.

Only one of the Phase III teachers planned classroom activity without consulting other members of their team. The other teachers coordinated their activities, although one stated that a more efficient method of coordination could be worked out.

The teachers felt that the most effective aspect of Phase III Career Orientation were the films, outside speakers, class discussions, and individual exploration (based on the learning activity package). In addition, teachers felt that the hands-on activities, the direct student involvement in production and decision-making within a company setting were very positive program aspects. Teachers indicated that the least effective aspects of the program involved: producing items for the retailing activity or the merchandise mart (they felt this activity detracted from the in-depth exploration of a few job areas); the limited time allocated for the counseling activity and the fact that some students were enrolled in subject areas which they did not choose to explore.

As in Phase II, teachers liked the feeling of achievement that accompanied working closely with students to produce items and explore various career opportunities. One teacher thought that because the number of class preparations was reduced, the additional time made it easier to prepare

more thorough lesson plans. One teacher remarked that Career Orientation was a practical approach to teaching some subjects normally included in a traditional curriculum--such as home economics. There were a variety of things which teachers disliked about teaching Career Orientation, such as (1) large class size, (2) some lack of student interest in pursuing career exploration, (3) the intense stress on mass production, (4) the difficulty of becoming acquainted with so many students in a short time period, (5) the major emphasis on preparation for the mart rather than student orientation concerning careers, and (6) the teachers' lack of general knowledge about a large number of individual careers.

Ten teachers thought that this program succeeded in helping students select their course of study for the following year. Ten teachers also indicated that students enjoyed the Career Orientation program.

Summary

The training preferences and the in-service training were almost identical to those expressed for Phase II. The course syllabus was unsatisfactory for most teachers.

As with Phase II, the teachers appear to be very interested and challenged by the Career Orientation program. They are willing to invest their time and talent to achieving the program objectives, but they are not always clear about what those objectives really are. The training sessions did not seem to offer practical suggestions for teaching this innovative program in career exploration. Project management might want to reexamine the objectives of each program phase, then design the training which will provide personnel equipped to meet those objectives.

One apparent difference between Phase II and Phase III is the group instruction received in Phase II compared to the self-contained learning activity packages used in Phase III. Although the concept of a business organization seems to work successfully in Phase II, it may not be appropriate for Phase III. The teachers indicated that the retailing activity built into Phase III was the least effective aspect of the program. Informal conversations with the teachers indicated that this situation was one which project management and the teaching staff were aware of and an attempt was being made to select an alternative strategy.

Appendix J

Teachers' Questionnaire

Phase III

SELECTED FUNCTIONAL COMPONENTS OF A VOCATIONAL EDUCATION COUNSELING SYSTEM FOR URBAN YOUTH

Sponsor: Pittsburgh Board of Education
341 South Bellefield Ave.
Pittsburgh, Penna. 15213

Evaluation Instruments Prepared and Distributed by:
American Institutes for Research
710 Chatham Center Office Building
Pittsburgh, Penna. 15219

Career Orientation Phase III

Teachers' Questionnaire

Please answer these questions as comprehensively as possible. You will in no way be personally identified with your responses. Please mail the completed questionnaire to AIR in the self-addressed return envelope.

Thank you for your participation.

1. In your opinion, when should in-service training for the Career Orientation program take place? (check appropriate answers)

   _____ before classes begin

   _____ after classes begin

   _____ throughout the school year

2. Which of the following types of in-service training would be most helpful in teaching Career Orientation?

   _____ a. learning about the middle school philosophy and its relationship to OVT and Career Orientation

   _____ b. group dynamics sessions

   _____ c. learning about the nature of the student enrolled in Career Orientation

   _____ d. learning about teaching strategies which help meet Career Orientation objectives

   _____ e. other (please describe) _____

   _____

   _____

3. Which of the following types of in-service training have you received as a Career Orientation teacher?

   _____ a. learning about the middle school philosophy and its relationship to OVT and Career Orientation

   _____ b. group dynamics sessions

   _____ c. learning about the nature of the student enrolled in Career Orientation

   _____ d. learning about teaching strategies which help meet Career Orientation objectives

   _____ e. other (please describe) _____

   _____

   _____

4. Has the syllabus for this course been a satisfactory guide for you to use in teaching Career Orientation? _____ If not, please explain.

_____

_____

_____

5. Do you usually coordinate teaching activities with other members of your team? _____

6. In your opinion, what aspect of the Career Orientation program is most effective?

_____

_____

7. In your opinion, what aspect of the Career Orientation program is least effective?

_____

_____

8. What do you like best about teaching Career Orientation? _____

_____

_____

9. What do you like least about teaching Career Orientation? _____

_____

_____

10. Has the program succeeded in helping students select their course of study for next year?

_____ Yes _____ No

11. Do you think students enjoyed the Career Orientation program?

_____ Yes _____ No

Graduate Placement and COOP Programs

Introduction

This segment of the report summarizes the efforts of the placement program for high school graduates and the cooperative work experience (COOP) program for secondary students. Although their specific objectives differ, the overall objectives of placement and COOP are linked. The graduate placement program attempts to find employment for graduating seniors or locate situations in which students become apprentices in particular trades. The COOP program is designed to provide work experience during the senior year while the student completes the academic and vocational requirements for graduation. Following graduation, students often remain in the same job they had during their work experience. The Pittsburgh COOP program has been expanded to serve both those students enrolled in skill-centered programs and those who have never enrolled for such training (Project SET).

The results of last year's evaluation indicated that both programs were well conceived and administered, with an open mind toward continuous improvement by the program staff who operate the program.

As previously mentioned, the major evaluative effort of this project focused on other vocational counseling segments, therefore, the following comments are based on a review of the current operations.

Program Description

Graduate Placement

The purpose of the graduate placement program is to find employment for all graduating seniors who want to find jobs. The follow-up study of June 1971 high school graduates, prepared by Systems-Wide Programs and Services of the Pittsburgh Public Schools, indicates that 4497 students graduated from the Pittsburgh Public Schools. Of that number, 56.8% entered post high school education, 25.3% became employed, 14% either left Pennsylvania, were unavailable for immediate employment, or were waiting for job placement; 3.9% entered the Armed Forces. Table XIII (totals) provides follow-up data on all 1971 graduates. It is suggested that in the future more attention be focused on determining why the 5.2% awaiting

employment (Table XV) were unable to find positions. A better understanding of their training and backgrounds would be useful in determining how to modify the graduate placement program in the years ahead.

The COOP Program

The COOP program is designed to provide work experience as an adjunct to classroom instruction during a student's senior year. The COOP program includes work experience in all areas of comprehensive specialization. As of June 1971, 421 seniors were enrolled in skill-centered courses; the enrollment figures include students from both the academic and general courses of study. Upon graduation, 33.3% had entered post high school education, 46.2% were employed, 16.2% were either residing in another state, unavailabel for immediate employment or waiting for job placement, and 4.4% entered the Armed Forces. This breakdown is also depicted in Table XIII, under skill-centered.

Both these programs are integral parts of a broader system of counseling which includes testing and guidance components, the instructional process and other school and work-related experiences which influence the student. This summary reports the results of the placement effort in both programs. In last year's final report, a more comprehensive evaluation of these programs was presented. The results indicated the program staffs administered a well-functioning program.

A new feature was added to the COOP placement facilities at the OVT Center. Based on a working model of a six year operational School of Industry Job Development Program, the Pittsburgh Urban League worked with the Pittsburgh Board of Education to design and implement a job center in each of five Pittsburgh high schools. The purpose of these job centers is to provide a source of job information to students and to offer job placement opportunities for seniors in the inner-city who are not continuing their formal education beyond high school. This program will be supported by the Board of Education on a system-wide basis in 1972-73.

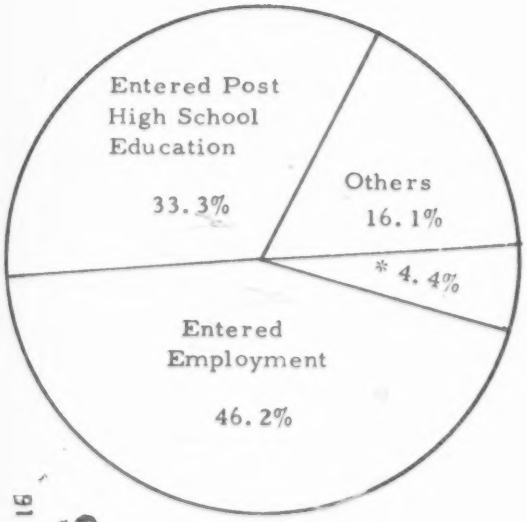
The program offers on-site recruiting of students by employers in a mass job placement effort at the job centers. For students not exposed to the skill-centered training programs, supportive assistance is provided in

the area of pre-work preparation. For example, the student can be interviewed in the familiar atmosphere of his school surroundings. Many students are placed in jobs as a result of the job center.

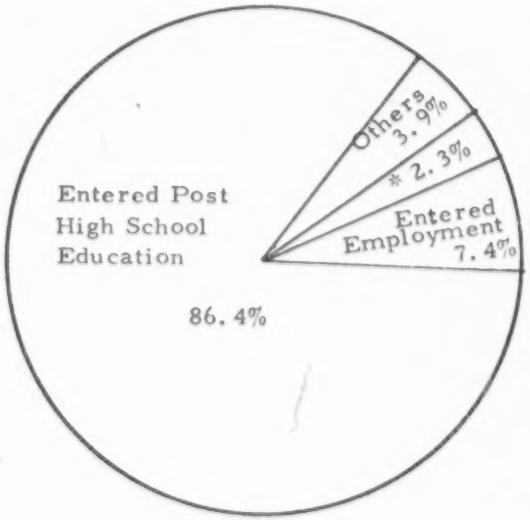
The job center concept is intended to supplement the system-wide placement program currently in existence. The following table shows the results of the placement effort as of June 1971.

TABLE XIII

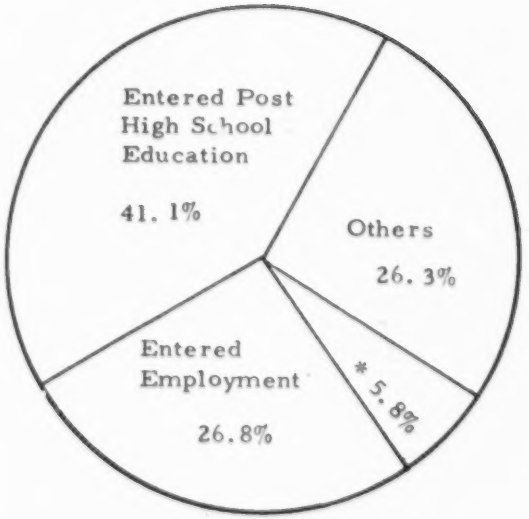
FOLLOW-UP OF ALL GRADUATES - CLASS OF JUNE, 1971 - PITTSBURGH PUBLIC SCHOOLS
AS OF OCTOBER 31, 1971
GRAPHIC DESCRIPTION BY PERCENTAGES



SKILL-CENTERED



ACADEMIC

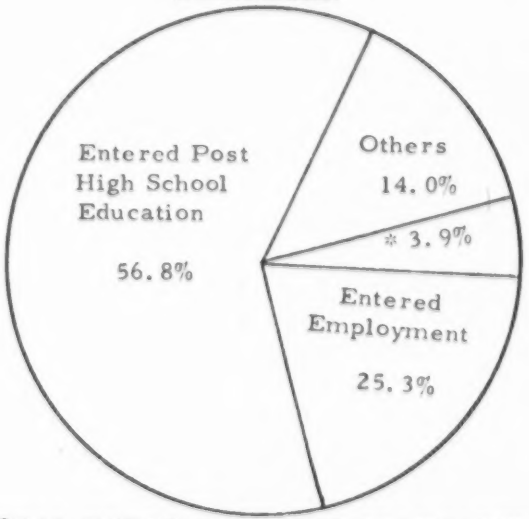


GENERAL

Post High School Education
- College Bound
- Post Graduate at Connelley
- Business & Technical Schools

Others
- Moved out of state
- Unavailable for immediate employment
- Did not graduate
- Waiting for job placement

all categories



TOTAL PERCENTAGES OF GRADUATES

* Entered Armed Forces

Entered Employment

Employed Full-Time - Academics & General Only

Employed Full-Time - Related to Preparation Skill-Centered Only

Employed Full-Time - Unrelated Preparation Skill-Centered Only

Apprenticeships

TABLE XIV

CITY HIGH SCHOOLS TO GRADUATE 4,497 IN JUNE **

SCHOOLS	NUMBER GRADUATING B	G	T	HONOR STUDENTS B	G	T	DATE	TIME	PLACE	SPEAKER
ALLDERDICE	336	307	643	*28 62	*39 89	*67 151	Monday, June 7	8:15	Civic Arena	Mr. J. Frederick Scherrer
ALLEGHENY	129	104	233	* 5 8	*15 14	*20 22	Monday, June 7	8:00	Carnegie Music Hall	Dr. Jerry C. Olson
CARRICK	207	178	385	* 3 7	*15 27	*18 34	Wednesday, June 9	8:15	Soldiers' & Sailors' Memorial Hall	Mr. Alfred Fascetti
FIFTH AVENUE	74	56	130	* 0 1	* 3 3	* 3 4	Wednesday, June 9	8:00	Carnegie Music Hall	Dr. William Green
GLADSTONE	53	46	99	* 0 2	* 6 5	* 6 7	Tuesday, June 15	8:15	Carnegie Music Hall	Mrs. Helen Faison
LANGLEY	163	174	337	* 4 14	*14 38	*18 52	Tuesday, June 8	8:00	Soldiers' & Sailors' Memorial Hall	Mr. Eugene Khorey
OLIVER	98	65	163	* 1 7	* 4 14	* 5 21	Friday, June 11	8:00	Carnegie Music Hall	Mr. John M. Brewer
PEABODY	323	253	576	*13 30	*30 47	*43 77	Thursday, June 10	8:15	Civic Arena	Dr. Roland Barnes
PERRY	149	159	308	*10 17	*19 35	*29 52	Monday, June 7	8:15	Soldiers' & Sailors' Memorial Hall	Mr. Francis Rifugiato
SCHENLEY	203	191	394	* 5 20	*16 20	*21 40	Friday, June 11	8:00	Soldiers' & Sailors' Memorial Hall	Mr. Eugene Khorey
SOUTH	117	114	231	* 2 6	* 9 10	*11 16	Tuesday, June 8	8:00	Carnegie Music Hall	Mr. Elmo C. Callaway
SOUTH HILLS	331	321	652	*18 29	*26 50	*44 79	Wednesday, June 9	8:15	Civic Arena	Dr. Madeline Pascasio
WESTINGHOUSE	174	172	346	* 4 8	* 7 18	*11 26	Thursday, June 10	8:00	Soldiers' & Sailors' Memorial Hall	Mrs. Helen Faison
TOTALS	2,357	2,140	4,497	*93 211	*203 370	*296 581	*High Honor		**Newspaper Item Pittsburgh Courier May 29, 1971	

The additional follow-up, illustrated below, as of 31 October 1971 summarizes the most recent data on the 1971 Pittsburgh Public Schools graduates.

TABLE XV

Follow-up of All Graduates -- Class of June 1971
As of October 31, 1971

	Number	Percentage
Number Continuing Education in Post-High School Institutions	2,554	56.8
Number Employed Full-Time in Business and Industry	1,140	25.3
Awaiting Job Placement as of October 31, 1971	232	5.2
Entered Armed Services	176	3.9
Did not Graduate	193	4.3
Unavailable for Immediate Placement	141	3.1
Moved Out of State	61	1.4
TOTAL	4,497	100.0

Appendix K

COOP Work Experience - OVT Rating Card

TRAINEE _____

SCHOOL _____

CO-OP WORK EXPERIENCE - OVT RATING CARD

COMPANY _____

ADDRESS _____ ZONE _____

DEPARTMENT _____

IMMEDIATE SUPERVISOR _____

USE CHECK MARK TO INDICATE RATING	EXCELLENT	ABOVE AVERAGE	AVERAGE	POOR	UNSATISFACTORY
APPEARANCE					
ATTENDANCE					
PUNCTUALITY					
REACTION TO SUPERVISION					
FOLLOWS INSTRUCTIONS WILLINGLY					
ASSUMING RESPONSIBILITY					
INTEREST IN JOB					
QUALITY OF WORK					
ATTITUDE TOWARD CO-WORKERS					
SELLING ABILITY [WHEN APPLIED]					

SPECIFIC ASSIGNMENT _____

RATED BY _____

RATE OF PAY _____ DATE _____

Project SET

Purpose of the Program

The purpose of Project SET is to identify disadvantaged alienated students who are potential secondary school drop-outs, and provide them with counseling, exploration and training opportunities that will enable them to develop a marketable skill while creating positive attitudes toward education and work.

General Objectives

To provide disadvantaged alienated students with skills which will enable them, upon completion of their secondary education, to further education or obtain a job in the private sector.

To demonstrate that the private sector, local school systems, and government agencies can effectively coordinate their individual efforts in providing alienated youth with meaningful counseling, career exploration and training experiences; and to develop innovative program models for these experiences.

To help disadvantaged alienated students achieve positive work experiences while they continue formal education and training to prepare for the world of work.

A. Counseling

To identify student attitudes toward education and work.

To identify the student interests and capabilities, then use them as a basis of counseling in determining training and career exploration potential.

To provide supportive counseling in an attempt to develop positive attitude toward work.

B. Pre-Job Training

To develop an open, non-structured participation program which utilizes filmstrips, movies, tapes and role play activities to provide experiences in potential employer-employee situations.

To explore careers identified as relevant to student interest.

On-the-Job Training

On-the-job training positions were developed by the Project SET staff. The following is the updated list of participating companies and the training received.

Company	Number of Students	Type of Training
Ben Diamond's Market	1	Sales
*Centre Builders & Supply Co.	1	Stocking, carpenter's helper
*Diamond Carbon Company	2	Production work
*Dickson Brothers Cleaners	1	Cleaning skills
*C.A.P. (Nate Smith)	1	Administrative aide and Management trainee
*Home for Crippled Children	2	Child care
*Special service	1	(Psychological testing and rehabilitation; job exploration while in residence at the home as a patient.)
*KQV Radio Station	1	Office skills
*Lavelle Real Estate	1	Office work
*Lovelace Marionettes	1	Apprentice puppeteer
McGriff's Sunoco Station	1	Service station attendant
Marianne Dress Shoppe	2	Sales, stocking
*Mellon Bank	1	Steno pool--Executive secretarial training
National Record Mart (* in 6 cases)	9	Sales
New Benin Art Gallery	1	Secretarial skills, sales
*Olympic Sports Center	1	Sales
Our Father's Sons' Boutique	1	Sales, stocking
*Pioneer Bakery	1	Baker's apprentice
*Royal Bedding Company	3	Mattress and furniture fabrication
Selma Burke Art Center	1	Secretarial skills
*Southern Platter	1	Chef's assistant
*St. Francis Hospital	1	Secretarial skills

Company	Number of Students	Type of Training
Third World Gift Shop	1	Sales, office work
*United Black Front	1	Office skills
*Veterans Administration Hospital	1	Hematology lab assistant
*Wylie-Centre Industries	1	Administrative aide and Management trainee
B/G Restaurant	1	Porter
*Bell Telephone of Penna.	7	1 - Directory 1 - Business office 1 - Plant office 1 - District traffic office 1 - Mail room 2 - Building attendant
*Catholic Cemeteries Assn.	1	Landscaping, maintenance, masonry
Charley's Restaurant	1	Assistant to cook
Dottie's Market	1	Sales, stocking
*Greb's Bakery	1	Baker's assistant
Letsche School, Pittsburgh Board of Education	2	Breakfast Program
*Presbyterian University Hospital	1	Tray girl
Salvation Army	1	Recreation and Child Tutoring
*Sears (Northside)	1	Auto service
*St. Clair Hospital	1	Food Service Aide
Stadium Authority	1	Maintenance
Stanley Theater	1	Usher
*Stylecraft	1	Training for home remodeling
	60	

*Represents valid training positions with a future -- (total of 41).

Twenty other students started with the program and the following is an account of their present status:

1	-	Deceased
2	-	Overdosed, hospitalized
1	-	Bureau of Vocational Rehabilitation, Youth Offender Section
1	-	Navy (volunteer)
1	-	Marines (volunteer)
3	-	Ed. Med. School
3	-	Quit school, channeled into Connelley G.E.D. classes
*8	-	Voluntary release from jobs for full-time concentration on school studies and regular N.Y.C.
20		

An additional 20 students are in counseling and preparation for jobs, or in remediation and reorientation due to the lack of placement.

20	
100	TOTAL

*Prime objective of the program.

List of Participating Companies in the Pittsburgh Area

Company	Number of Students
B/G Restaurant	1
Bell Telephone of Pennsylvania	8
Ben Diamond's Market	1
C.A.P. (Nate Smith)	1
Catholic Cemetries Association	1
Centre Builders & Supply Company	1
Charley's Restaurant	1
Diamond Carbon Company	2
Dickson Brothers Cleaners	1
Dottie's Market	1
Greb's Bakery	1
Home for Crippled Children	3
KQV Radio Station	1
Lavelle Real Estate	1
Letsche School, Pittsburgh Board of Education	2
Lovelace Marionettes	1
McGriff's Sunoco Station	1
Marianne Dress Shoppe	2
Mellon Bank	1
National Record Mart	9
New Benin Art Gallery	1
Olympic Sports Center	1
Our Father's Sons' Boutique	1
Pioneer Bakery	1
Presbyterian University Hospital	1
Royal Bedding Company	3
Salvation Army	1
Selma Burke Art Center	1
Southern Platter	1
St. Clair Hospital	1
St. Francis Hospital	1

Company	Number of Students
Stadium Authority	1
Stanley Theater	1
Stylecraft	1
Third World Gift Shop	1
United Black Front	1
Veterans Administration Hospital	1
Wylie-Centre Industries	1
TOTAL	60

Development of the Instruments

The interactive process of evaluation was also applied to the development of data collection instruments for Project SET. A meeting was held between the evaluation staff and the project director to discuss the type of instruments which would be most useful in evaluating the effectiveness of Project SET.

As a result of that meeting, the following instruments were developed:

1. A student attitude questionnaire designed to assess student attitude and opinion toward Project SET (see Appendix L).
2. A questionnaire designed to measure parental attitude and opinion toward Project SET and to find out whether parents perceive any changes in a son/daughter as a result of participation in Project SET (see Appendix M).
3. A staff questionnaire designed to gather information regarding Project SET personnel attitudes, opinions and suggestions for change about this work experience program (see Appendix N).
4. An employer interview form designed to gather information about an employer's experiences with the students, perceptions of the program and attitude toward continued association with the program (see Appendix O).

Students, parents and staff members were requested to complete their questionnaires and return them by mail to AIR. Telephone interviews were conducted with the employers.

Results and Discussion

Student Questionnaire

A sample of thirty students enrolled in Project SET was selected by the project director to complete questionnaires during one of their regular meetings. To insure anonymity, completed questionnaires in a self-addressed stamped envelope were returned to the project director who mailed them directly to AIR.

Twenty-one questionnaires were received from student participants. Overall, the students responded positively to the work experience program.

Students indicated aspects of the program which they liked best. For example, three students stated that involvement in this program had changed his/her life because it helped clarify personal career goals and also increased the development of some skills. Two students liked SET because it helped them to learn more about the reality of being in a real work environment. Many liked the program because they were earning money. Other students suggested that meeting new people, learning about new things and working outside the Neighborhood Youth Corps (NYC) were things they liked best about the work experience program.

Five students responded that there was nothing which they liked least about the program. Those who experienced some dissatisfaction frequently cited the interpersonal relationships on the job as the cause of their difficulty. Three students remarked that they felt that the people with whom they worked on the job looked down on them and as a result, the students did not feel comfortable. Often, the students stated, the other employees were rude and uncooperative with them. Some students were dissatisfied because they were not allowed to increase the number of working hours (expansion of hours would be contrary to program objectives).

Regarding attitude change toward work, students responded that this experience increased their desire to find better jobs following graduation. One student said that this experience increased his ability to get along with other people. Another student indicated that if he had known about the tasks he would be asked to perform, he would have refused the job.

Most students indicated that there had been little change in their attitude toward school. However, three stated that the program had helped them remain in school and that in some cases, they even began to study a bit harder.

Students suggested few program changes. Five students recommended that no changes be made. Three students suggested that some orientation be given to help employers and their staff members develop a more sensitive attitude toward the student employees. One student suggested that the program hire more reliable students. Three students said they would like more money and additional breaks.

Under additional comments, students indicated that they hoped the program would continue and that they looked forward to an improved attitude by the employers and their staff members.

Summary of Student Attitude

Student attitude toward the work experience program seems to be positive. Students enjoy having the opportunity to work and earn money; in some cases, it was a motivator toward remaining in school. One disturbing factor which emerges from these results, however, is the student feeling regarding negative employer and employee attitudes. This may result from a student's prior experience and might be examined during individual counseling sessions.

Parents Attitude

Of 45 questionnaires mailed to the parents of students enrolled in the work experience program, seven questionnaires were completed and returned. The results were generally positive; the parents indicated that the program beneficially affected their children.

Five parents stated that they were pleased with the job their son/daughter had obtained through the program. They felt the job supplied the young people with a useful activity and at the same time, it provided an independent source of income. One parent felt that it helped her child to mature. Only one parent indicated dissatisfaction with the job; this parent stated that no "educational" work had been assigned to the child.

Four parents suggested that the work experience program had altered a son/daughter's attitude toward work. Following graduation, some students were interested in locating better jobs, one had no interest in finding a job, another felt that the child had a more realistic understanding of what life was about. Two parents said that the attitude toward work had remained unchanged.

Concerning attitudes toward school, the parents generally agreed that the work experience program had not changed their son/daughter's attitude. Those few who indicated there had been a change cited that the child now

realized the importance of an education when looking for a job.

Four parents said they noticed some behavioral changes in their son/daughter as a result of the work experience program. For example, two parents stated that their child had learned to budget money, two suggested that the program had helped their child interact better with other people, and one indicated that the child had become more sensitive toward others.

All six parents recommended the work experience program to other parents in their community because they felt it provided an opportunity for their children to become independent by earning money on their own. One parent expressed the wish that every student who wanted to could participate in this program.

Additional comments indicated that parents would like to see their children working more hours and that the program has prevented their child from becoming a school dropout.

Summary of Parent Attitudes

The small parental return rate (15.5%) makes it difficult to assess the attitude of the parents toward the program. However, if these responses are an accurate reflection of parental attitude, the program is positively received by parents. Not only do they enjoy having their children employed, but they also feel relieved because the young people are able to buy some things parents can't afford to obtain for them. Another positive side effect has been the willingness of students to continue attending school and their realization of the importance of at least a high school diploma in the acquisition of employment.

Employer Attitudes

The Project SET coordinator supplied AIR with a list of 28 employers with whom 33 students in the cooperative work experience program were currently or previously affiliated. Twenty-five employers were interviewed by phone. Of the original 33 students, 21 were still working; the remaining 12 were no longer employed either because they quit or had been asked not to return to work.

Most employers expressed overall satisfaction with their students. The characteristics of satisfaction associated with a student's work performance were positive attitude, skill development, and willingness to learn. Employers cited tardiness, lack of contact in case of absenteeism, and in two cases, laziness as elements of dissatisfaction. No one indicated that any student had ability too limited to perform some task. Most students generally improved during their period of service--the employers seemed to be aware of the entry level of students in the work experience program and consequently spent whatever time was necessary to train students to perform particular tasks. Because many students entered with limited capability, employers were encouraged when their efforts resulted in increased efficiency, reliability and other behavioral changes which demonstrated that students were benefiting from this experience.

One employer was an exception to the overall response. His experience in this program was negative. His student employee displayed a surliness and unwillingness to do the work assigned to him. Often the student hid in a corner to avoid working or simply refused to work unless reminded by the supervisor. This employer seemed to think that even with the economic compensation received, the level of effort was just too demanding and the result not worthwhile.

No students received job training from the school before assuming any job responsibility. The employers trained students on the job and then students were given specific duties and responsibilities. For example, one student became a sales clerk in a five and dime store, another photocopied materials and did minimum filing in an office. Each employer seemed to tailor job assignments to individual students.

Difficulties with students were handled in a variety of ways. The employer usually attempted to work out problems internally. Sometimes these techniques were successful and problems did not reoccur. Such problems included not reporting absenteeism, reminders to work, personal appearance, etc. If assistance from the school staff was needed, the staff was contacted by the employer. All employers who used this approach reported sincere cooperation and support from the SET staff. If a difficulty was not solved, the student/employer relationship was often terminated--by one party or another. No work experiences continued under conditions which were unacceptable to either the student or the employer.

Each employer was asked whether he would be willing to hire the students as full-time employees following graduation. All but five employers replied affirmatively; a negative reply did not necessarily indicate dissatisfaction with student work performance. For example, one employer would have happily hired the student who worked for him because he considered him an outstanding employee, however, he was prevented from doing so because of a strong union. Upon graduation, the student would be forced to join the union, then compete with other employed union members for jobs. This particular employer indicated that he had a waiting list of many part-time unemployed union members who would have to be hired before the new recruit. Another employer stated that he would be happy to employ his student, but upon graduation, the student would be required to achieve a minimum score on a civil service exam, then be added to a waiting list before the possibility of further employment would exist. Another reason for not hiring on the basis other than dissatisfaction with job performance would be that openings were simply not available. Of course, each employer based his response on his specific situation. Overall, most employers who were satisfied with the job performance of the student were willing if possible to hire the student as a full-time employee.

None of the employers who were interviewed offered negative comments about the program operations or the program staff; there were, however, a few suggestions for modification, based on their individual experiences with the program. For example, one employer commented that his student employee was not cognizant of the entire program of which she was a part. She did not understand what any other students were doing. This employer suggested a regularly scheduled meeting where the student participants could share the experiences of their jobs. In addition, school and program staff members could attend in order to receive some feedback about actual operations in the field.

Based on one experience with his student employee, an employer expressed interest in establishing regular channels of communication between the project staff and the employers. He felt that an inability to contact the staff during one segment of the program resulted in the loss of a worthwhile experience for the student.

One of the most common remarks made by the employers was a lack of student awareness concerning job courtesies--not phoning in to report off, high absentee rate, tardiness when reporting to work, irregular attendance and quitting with no notice. There seemed to be certain aspects of job responsibility for which these students were completely unprepared. Some employers suggested an orientation program designed specifically to discuss the "nuts and bolts" of job courtesies.

One employer expressed surprise that school personnel did not speak more positively about students. He felt that some potential employers might be frightened from participating in the program if they based their response heavily on initial school inputs. He suggested that the staff attempt to stress positive features of each student when contacting and arranging employment opportunities.

The discussions with the employers yielded some additional anecdotal information. Most of the employers who experienced positive results with their student employees indicated a willingness to participate again in the program by taking another student during the next term. No one expressed outstanding critical comments about the program--generally, they felt it was a worthwhile idea which had social significance. A few expressed dismay at the extensive time involved in working with and training these students, and they did not feel a sufficient return on the investment of their time and effort. Overall, most employers were willing to contribute the necessary efforts to expose the students to the business world.

One fringe benefit for other staff members of an employer was the exposure to people from disadvantaged backgrounds. One employer stated that none of his staff had ever interacted with such an individual before and the learning experience was a mutual one.

Staff Attitude

All three members of the Project SET staff responded to the attitude questionnaire. The purpose of the questionnaire was to gather information about the staff's opinions on training, need for additional support within the school system, and the role of the students in the program. Staff members were asked to suggest changes which would result in program improvement.

One member of the staff felt inadequately trained for the job; the other two indicated they were prepared to assume tasks required. Training included previous teaching and counseling experience. No staff member had previous experience in job placement.

The staff members suggested additional individuals or organizations within the school system which could lend support to Project SET. All three identified similar groups--the Central Coordination staff who could assist in locating jobs for Project SET students*, the individual school administrative staff who could help when disciplinary problems arose with students, and individual classroom teachers whose flexibility in scheduling and school assignments could help these remedial students. The major contribution of this program to the students as perceived by the entire staff, is the student's first hand experience with job responsibilities and requirements. Specific items were identified--increased levels of confidence in adults with whom they worked (both in Project SET and on the job), awareness of job demands, knowledge of the value of a formal school training, improved self-image, plus the opportunity to earn their own money.

The staff generally agreed on the weak aspects of the program. For example, they indicated that job opportunities were limited, irregular pay schedules were confusing for students, the employer attitudes often inhibited students and were not encouraging to them. The tolerance level of employers was low and they lacked understanding and sensitivity about the type of student with whom they were dealing. These factors resulted in an inability to cope with some problems which arise. One staff member suggested that parents become more actively involved in the program, although no specific ways in which this could be implemented were identified.

Suggested changes for next year's program included a group orientation for both enrollees and their parents, increased involvement by the parents, more assistance in job placement from other appropriate personnel, flexibility in class scheduling, and extension of the program to include more students. One staff member indicated that such programs could be expanded if industry were somehow responsible for helping a specific percentage of underprivileged youth in this and similar work experience programs.

*This is a recent innovation within the placement department and is an outgrowth of administrative centralization of placement.

Each staff member had additional comments regarding the program. One member stated that this year's program had achieved the objective of providing educationally alienated students with an opportunity to gain a marketable skill through an employment experience and to demonstrate that industry and school systems can effectively coordinate efforts to help disadvantaged youth to experience meaningful career exploration. In some cases, the same school administrators and teachers who had previously refused to interact with certain students have, as a result of this program, altered their behavior and are now inquiring about students' progress. The remaining staff member confined additional remarks to space limitations at the office, but expressed the hope that students would be given additional time for necessary remedial work.

Overall, Project SET personnel seem to feel positively about the program. Many of the comments and suggestions coincide with the student responses. For example, both groups identified the negative attitudes exhibited by some employers and their employees toward the students. Staff comments suggest that they work together to make the program successful and agree upon specific areas where the program can be improved.

Appendix L

Student Questionnaire

Project SET

SELECTED FUNCTIONAL COMPONENTS OF A VOCATIONAL EDUCATION COUNSELING SYSTEM FOR URBAN YOUTH

Sponsor: Pittsburgh Board of Education
341 South Bellefield Ave.
Pittsburgh, Penna. 15213

Evaluation Instruments Prepared by:
American Institutes for Research
710 Chatham Center Office Building
Pittsburgh, Penna. 15219

Project SET

Student Questionnaire

1. What do you like best about the work experience program?

2. What do you like least about the work experience program?

3. How has the work experience program changed your feelings about work?

4. How has the work experience program changed your feelings about school?

5. if you were running this program, what changes would you make?

6. Other (Please add any additional comments you would like to make about the work experience program.)

Appendix M

Parental Questionnaire

Project SET

SELECTED FUNCTIONAL COMPONENTS OF A VOCATIONAL EDUCATION COUNSELING SYSTEM FOR URBAN YOUTH

Sponsor: Pittsburgh Board of Education
341 South Bellefield Ave.
Pittsburgh, Penna. 15213

Evaluation Instruments Prepared by:
American Institutes for Research
710 Chatham Center Office Building
Pittsburgh, Penna. 15219

Project SET

Parental Questionnaire

1. Are you pleased with the job your son/daughter has obtained through the work experience program? ____ Yes ____ No Please explain:

_____

_____

2. Do you think the work experience program has changed your son/daughter's feelings about work? ____ Yes ____ No Please explain:

_____

_____

3. Do you think the work experience program has changed your son/daughter's feelings about school? ____ Yes ____ No Please explain:

_____

_____

4. Have you noticed anything particularly good or bad that has happened to your son/daughter as a result of the work experience program?
____ Yes ____ No Please explain:

_____

_____

5. Would you recommend the work experience program to other parents in your community? ____ Yes ____ No Please explain:

_____

_____

6. Other (Please add any additional comments you would like to make about the work experience program.)

_____

_____

Appendix N

Staff Questionnaire

Project SET

SELECTED FUNCTIONAL COMPONENTS OF A VOCATIONAL EDUCATION COUNSELING SYSTEM FOR URBAN YOUTH

Sponsor: Pittsburgh Board of Education
341 South Bellefield Ave.
Pittsburgh, Penna. 15213

Evaluation Instruments Prepared by:
American Institutes for Research
710 Chatham Center Office Building
Pittsburgh, Penna. 15219

Project SET

Staff Questionnaire

1. Do you think you were adequately prepared for your job? ____ Yes ____ No
   Please explain:

   _____

   _____

2. From what individuals or organizations within the school system could you use additional support?

   _____

   _____

3. What do think the major contribution has been to the students involved in the program?

   _____

   _____

4. What do you think has been the weakest part of the program?

   _____

   _____

5. What changes would you suggest to improve next year's program?

   _____

   _____

6. Other (Please express additional comments you have about any part of this program.)

   _____

   _____

   _____

Appendix O

Employer Questionnaire

SELECTED FUNCTIONAL COMPONENTS OF A VOCATIONAL EDUCATION COUNSELING SYSTEM FOR URBAN YOUTH

Sponsor: Pittsburgh Board of Education
341 South Bellefield Ave.
Pittsburgh, Penna. 15213

Evaluation Instruments Prepared by:
American Institutes for Research
710 Chatham Center Office Building
Pittsburgh, Penna. 15219

Project SET

Employer Questionnaire

1. Are you satisfied with _____ current work performance?

_____

_____

2. Has _____ improved during the period of employment?
___ Yes ___ No How?

_____

_____

3. Do you think the students were adequately prepared to assume their job responsibilities? ___ Yes ___ No Please explain:

_____

_____

4. Do you think the contact between you and the school has been sufficient to solve any difficulties that have arisen? ___ Yes ___ No
Please explain:

_____

5. Would you consider hiring this student as a full-time employee after graduation? ___ Yes ___ No Please explain:

_____

6. Have you any suggestions for program changes which would better serve your needs?

_____

7. Other (Have you any additional comments about any part of the work experience program?)

_____

_____

Appendix P

A Message to Fifth Avenue High School Students and Their Parents

Project SET

STUDENTS AND PARENTS:

It is never too soon to earn money--it is never too late to learn a skill. There is a job for everyone somewhere--all we must do is find it.

The Pittsburgh Public Schools' OVT Division has a program to assist students in combining earning power with skill training as "Select Employment Trainees" in business and industry.

Only the student's interest and what he can do is necessary to start . . . The end may be satisfying employment.

THE PROGRAM — The program is a vocational education plan providing participating students with a half day "on-the-job" training position in industry while attending school half day. Individual help will supplement the vocational training needs of each student.

WHO CAN ENTER THE PROGRAM — The program is available to students who are not enrolled in any other vocational work-study program. Students must meet the age requirements for "on-the-job" training positions within the Pittsburgh labor market.

COUNSELING — Pre-vocational counseling will be provided to support the student as a "Select Employment Trainee." This counseling will assist the student-worker to clarify his thinking with regard to vocational opportunities and preferences.

REMEDIATION — Individual student help will be provided in response to particular vocational training needs as defined by participating employers. This individual help will continue throughout the program.

ROLE OF BUSINESS/INDUSTRY — Companies will be requested to provide training positions for participating students. They will work with the Project Coordinator to allow the student to learn a skill.

TIME SCHEDULE — Students will reach a state of readiness for vocational training at different times in the program. When ready, schedules will be adjusted so that the trainee may complete required school work (half day), individual counseling, and adequate time on the job.

STUDENT PAY — Students will receive entry-level rates of participating companies.

ADDITIONAL INFORMATION — If you have any questions, please contact Fred A. Monaco, Counselor/Coordinator;

Fifth Avenue High School -- 471-1045
or
OVT Center -- 682-1700, Ext. 413

TO PARTICIPATE — If you have read this and wish to participate in this program, please complete the form and return it to Fred Monaco at Fifth Avenue High School.

Date: _____

I wish to become a Select Employment Trainee (work half day/attend school half day.)

_____
Student's Signature

_____
Parent's Signature

Appendix Q

A Message to Pittsburgh Employers

Project SET

MR. EMPLOYER:

We need your help! We hope you need ours! In today's changing social scene, you can play a major role as a Pittsburgh businessman. You can assist the Pittsburgh Public Schools' OVT Division in a special program to allow students the opportunity to combine earning power with skill training. Would you consider hiring a student to be a "Select Employment Trainee" in your business or industry? We have the students. We need jobs!

WHAT IS THE PROGRAM?

The program is a vocational education plan for students who are not participating in a skill centered program in school. The plan calls for these students to work a half day and attend school a half day. The students receive pre-employment training and intensive counseling before they begin work and they receive supportive counseling after they are on the job.

WHY SUCH A PROGRAM?

This plan answers needs of both students and employers in several ways:

1. The schools and industry will undertake a cooperative effort to educate and train deprived youth by the "on-the-job" training method which is responsive to the particular needs of the student and the vocational position.
2. The student/employee will get necessary academic education supplementary to his training needs on his own time rather than at company expense.
3. The student/employee receives continuous educational, vocational, and personal counseling throughout the training experience. This assures the employer that there is professional help for his employee on any problem, as requested by the employer or student.
4. The student/employee will be educated and trained to become an efficient, loyal employee, responsive to the vocational needs of his position.

WHEN WILL THE PROGRAM BEGIN?

You are encouraged to employ one or more trainees any time after initial contact with the Program Coordinator.

WHAT MUST THE EMPLOYER DO TO PARTICIPATE?

Should such a program be of interest to you, please call Fred Monaco, 682-1700, Ext. 413, or 471-1045. A staff member will then meet with you at your convenience. Questions will be answered and arrangements can be made at this meeting. Even if you are not certain you are able to participate now, please call or complete and mail the form below.

Date:_____

I wish to arrange a meeting to satisfy myself that this program can provide a highly productive method of preparing well-trained, proficient employees, and, at the same time, a method of helping deprived young people.

Name:_____

Address:_____

Telephone:_____

Mail to:

Fred A. Monaco
c/o Neighborhood Youth Corps Office
Occupational, Vocational, Technical Center
635 Ridge Avenue
Pittsburgh, Pennsylvania 15212

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